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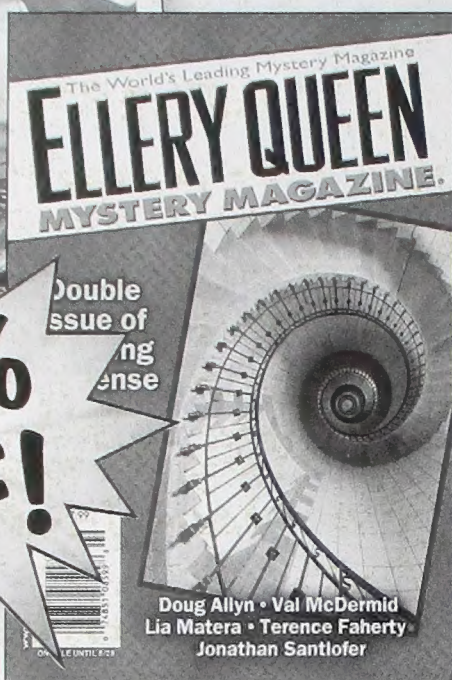
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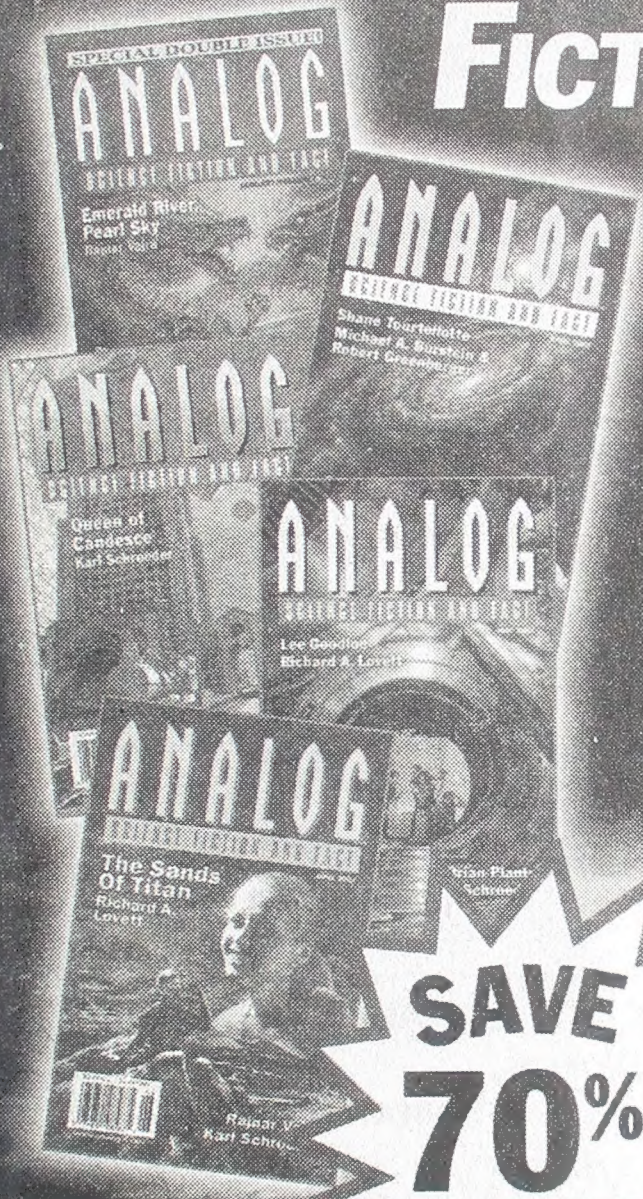
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SCIENCE FICTION

JANUARY 2014

Vol. 38 No. 1 (Whole Number 456)
Next Issue on Sale December 17, 2013

Cover Art by Gromovataya/Shutterstock.com

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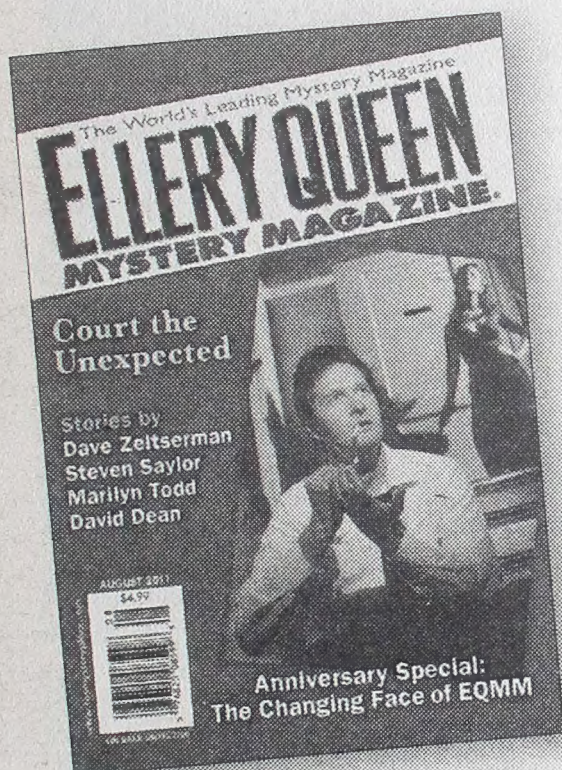
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A ONCE IN A LIFETIME DAY

Like everyone, I have bad days and good days, and so-so days and great days, and then there are those rare days that remind me of why I'm so happy to be alive. One of the latter occurred on May 16, 2013. I flew to San Jose for the Nebula Awards weekend on the 15th. Tachyon Publications publisher Jacob Weisman and his wife Rina had invited me to stay with them in San Francisco before the Nebula weekend officially began. Jacob and Tachyon managing editor Jill Roberts were at the airport to welcome me to California. We went out for a delicious dinner at Baby Blues BBQ, and then, after coping with a flat tire, I went to the Weismans' home for a restful sleep in their guest bedroom.

The following morning, after tea and a chat with Rina, I piled my luggage into Terry Bisson's car. Terry is probably best known to *Asimov's* readers for his 1990 Hugo- and Nebula-Award winning story, "Bears Discover Fire." Although he is originally from Kentucky, Terry and his wife, Judy Jensen, spent years in New York City. I'd missed them since they moved to California to be closer to kids and grandkids. After sustaining minor damage from an inattentive driver who sideswiped my side of the car just as we departed Jacob's block, we headed off to Just For You Cafe for brunch and conversation.

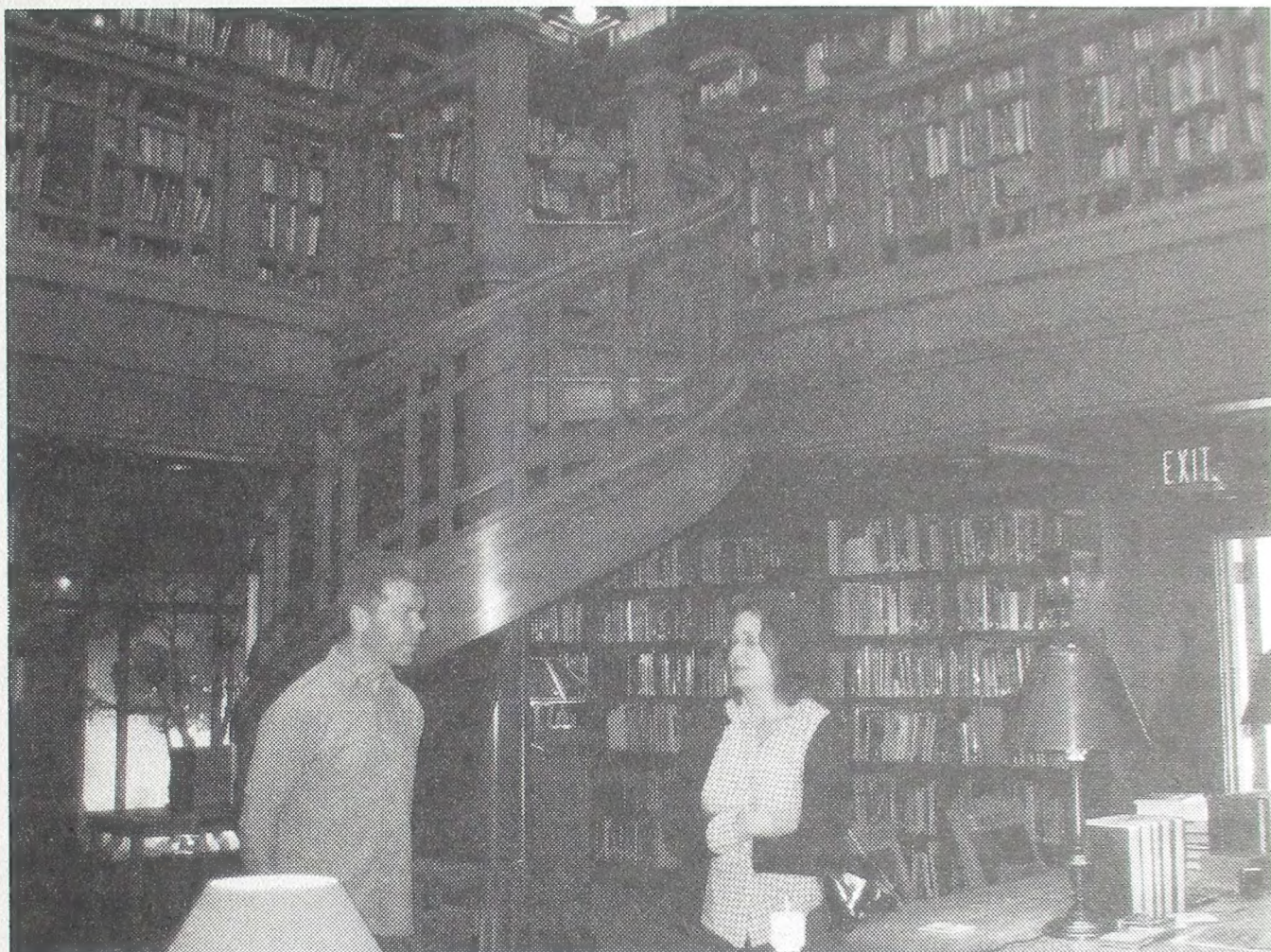
While I could have talked with Judy and Terry for hours, I still had miles to go before the day would end. When brunch was over, I took a walk around the neighborhood with my two old friends and then we were met by Lisa Goldstein. Lisa's most recent story in *Asimov's* was the Sidewise-award-winning "Paradise Is a Walled Garden." I transferred all my bags into Lisa's car and we were off to the other side of town to meet Gregory Norman Bossert at the Presidio.

While I've known Lisa for thirty years, this would be my first chance to get to know Greg. Back in 2009, I found his story, "Union of Soil and Sky," in the *Asimov's* slush pile. Even though it was his first sale, I was struck by the story's professionalism. In short order, I bought two more and have continued to purchase his stories for the magazine whenever I get a chance.

Greg works for Industrial Light and Magic (ILM) and he had offered to take me on a tour of the ILM offices at the Presidio as well as Skywalker Ranch, the workplace of George Lucas, and to bring a friend. When Greg said "tour" I thought he meant we would be joining a group for a regularly scheduled excursion. Well, I was in for a surprise!

Apparently, group tours are rarely offered at the Ranch. Instead, Lisa and I had signed up for Greg's private tour. We set off immediately because Greg was afraid that they would stop serving lunch before we arrived. Signs that we were about to have an awesome adventure were auspicious. The weather was beautiful, we passed an obvious Heinlein reader whose license plate said something like "GROKON," and no more minor automobile mishaps presented themselves.

As we entered the property, we saw horses, cows, and a cowboy. We went from cattle country to a rolling vineyard, and finally ended up at the Main House. This fifty-thousand-square foot structure was designed to look like a Victorian mansion. The redwood paneling that covers much of the interior walls is recycled from an old bridge. Before giving us our tour, Greg whisked us into the dining room. The staff knew we were coming, and had kept the food warm even though we were a little late. It was too windy to dine in the rocking chairs on the veran-



**Gregory Norman Bossert and Sheila Williams in
"The Best Room in the World."**

da. Instead, we had to make do by alternating our gaze from the view out the window to the original Norman Rockwell painting on the wall.

Greg's tour began as soon as we had finished lunch. A display case in one of the front rooms held some of science fiction filmdom's most treasured artifacts. These included the Golden Idol of Fertility from the beginning of *Raiders of the Lost Ark*; Luke Skywalker's lightsaber, which was flown into orbit aboard the Space Shuttle *Discovery* in 2007, and a Jabba the Hutt prototype from *Return of the Jedi*. Perhaps incongruous, but no less charming or thrilling to see, were Charlie Chaplin's hat and cane.

Next, Greg took us to what he called, "The Best Room in the World"—the Library. According to the Lucas brochure, this room was "created in the style of the Arts and Crafts movement circa 1910." The library's nineteen-foot diameter

leaded-glass dome, lanterns, and hanging lamps were all made by the Skywalker Art Glass Studio. Its spiral staircase was built at the Skywalker Mill Shop. The "Garden of Allah," a Maxwell Parrish painting that hangs above the fireplace "was originally designed for a Crane chocolate gift box in 1918."

Tucked away on a windowsill behind the librarian's desk was a little gold statuette. I asked her if it was a "Maria" because from a distance it looked so much like the robot in *Metropolis*. Greg quickly informed me that it was a little C-3PO that marks an employee's twentieth anniversary with Lucasfilm. The librarian added that the mistake was not an accident, though, because Ralph McQuarrie's design for film's most anxious robot was heavily influenced by Fritz Lang's *Maschinenmensch*.

All too soon, we had to tear ourselves away from the Ranch and head back to



Photo by Lisa Goldstein

E.T. and Sheila Williams

San Francisco for Greg's tour of Industrial Light & Magic at the Letterman Digital Arts Center. At the entrance, we were greeted by the agonized form of Han Solo caught in carbonite, which was pulled from the same mold as the one used in the movie. Vintage foreign cinema posters from George Lucas's personal collection lined the hallways. These were interspersed with the matte paintings that once formed many a motion picture's background image. Here hung scenes from *E.T.*, *Star Trek IV: The Voyage Home*, *Die Hard II*, and *Enemy Mine*. The magic of movie making made all these images seem utterly believable in their time. Nowadays, these masterpieces are no longer produced because the work is all done digitally.

Many other treasures, such as the *Red October* submarine, a flattened Judge Doom from *Who Framed Roger Rabbit*, Slimer the Ghost from *Ghost Busters II*,

and production models of *Galaxy Quest's Protector* and *Falcon*, were on display. None of that quite prepared me for the awesome moment when I stood in a stairwell under E.T. and his flying bicycle.

Eventually, as the office closed down around us, we had to take our leave. Greg and I said goodbye to Lisa, and then set out for opening Nebula festivities. We arrived at the San Jose Hilton just as Grand Master Connie Willis commenced reading an enthralling "Work in Progress." Connie assures me that once done, this story will be heading our way. After Connie finished, the Science Fiction Writers of America's newest Grandmaster, Gene Wolfe read from one of his classic tales.

Later, a small group of writers headed out to Singlebarrel—one of San Jose's whiskey bars. Greg and I joined them for a cocktail, which was a perfect ending for a perfect day. ○

Sheila Williams

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THE PLURALITY OF WORLDS: A CONTRARIAN VIEW

Last issue I propounded my belief—not for the first time in these pages—that the universe is full of planets, that many of these planets are suitable for life-forms analogous to those that live on Earth, and that in fact many of those planets *are* inhabited by life-forms analogous to those that live on Earth.

My argument was strictly a probabilistic one, based on the size of the universe and the number of stars therein. In a 2004 column, I calculated just how many inhabited worlds were likely to be out there. I figured there were twelve billion stars in our local galaxy alone that are neither too big nor too small to provide the energy that life-forms of our sort require. “If half of these have planets,” I wrote, “and half of those planets lie at the correct distance to maintain water in its liquid state, and half of those are large enough to retain an atmosphere, that leaves us with a billion and a half potentially habitable worlds in our immediate galactic vicinity. Say that a billion of these must be rejected because they’re so large that gravity would be a problem, or because they have no water, or because they’re in some other way unsuitable. That still leaves five hundred million possible Earths in the Milky Way galaxy. And there are millions of galaxies.” By way of supporting the idea of an inhabited cosmos, I offered a thought that was put forth about three hundred B.C. by the Greek philosopher Metrodorus the Epicurean: “To consider the Earth the only populated world in infinite space is as absurd as to assert that in an entire field sown with millet only one grain will grow.”

I am neither an astronomer nor a philosopher, but these arguments seem

incontrovertible to me. The alternative is the medieval Christian one, put forth most vigorously in the thirteenth century by Thomas Aquinas, who based his ideas to some extent on the teachings of Plato, seventeen hundred years before him. St. Thomas argued that the Earth was the unique and special creation of God, the center of the universe and the only place in the cosmos where life existed. This became the established dogma of the Roman Catholic Church, which means it was the only permissible way of thinking about these things in Western Europe for hundreds of years. But, since the existence of God Himself gradually became a matter for dispute rather than automatic acceptance, it was more and more difficult for serious thinkers to rely purely on the faith that the Church fathers had a perfect understanding of His intentions. Gradually, under the assaults of such men as Copernicus and Galileo, the idea of the Earth as the center of the universe was weakened, and by 1686 it was possible for the French poet and philosopher Bernard de Fontenelle to publish a clever little book called *A Plurality of Worlds* that not only portrayed the Earth as one of many inhabited planets in the universe but also set forth a view of the heavens that was essentially the one we know to be correct: the Sun at the center of our solar system, the various planets in orbit around it, their various moons in orbit around them.

There can no longer be any doubt that the solarcentric view of things is the right one, and from the Kepler telescope and other sources has come proof of the existence of hosts of extrasolar planets orbiting stars far and near. One would think, then, that the last vestiges of the theory that the Earth is the center of

everything and that mankind is the crown of creation have been laid to rest, and that one can accept as a scientifically established fact that the universe is full of other worlds, many of them, in all likelihood, inhabited by highly evolved life-forms. But now I find it necessary to point out that the old theory still has at least one powerful advocate who is not in any way a medieval theologian, who is, indeed, using scientific data in support of his contrarian ideas about the uniqueness of Earth and of the human species.

This contrarian philosopher is John Gribbin, the Cambridge-educated astrophysicist and the author of a great many challenging and award-winning books exploring the boundary between science and science fiction. His 1977 book *White Holes* explored the latest cosmological theories. In 1979, he gave us *Timewarps*, which examined the possibility that time travel might actually be feasible. This was followed by 1983's *Spacwarps: Black Holes, White Holes, Worm Holes, Quasars, and the Universe*, 1992's *Unveiling the Edge of Time*, and so on, through book after book, to 2007's *The Universe: A Biography* and 2008's *From Here to Infinity*. He's also written many books on climate change and even eight science fiction novels, so his credentials as a speculative thinker are in excellent order and his scientific background is impeccable.

And from Gribbin in 2011 came a book called *Alone in the Universe: Why Our Planet is Unique*, which provides the strongest case in favor of our solitary position in the universe since St. Thomas Aquinas set forth his ideas eight hundred years ago. "The Milky Way," Gribbin says, "contains a few hundred billion stars, but almost certainly contains only one intelligent civilization." Unlike the Church fathers, though, Gribbin doesn't call upon divine revelation to bolster his thesis. Ultimately he gets to the same position as Aquinas, or something fairly close to it, but he gets there by way of scientific data alone.

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Gribbin bases his case on the supposition that a “supercomet” collided with Venus six hundred million years ago, setting in motion a chain of cosmic events that culminated in the crash of a planet or asteroid into the Earth. The invader, liquefied by the impact, sank to the Earth’s metallic core and greatly increased its size. The collision also generated enough heat to melt the surface of our world and to send a huge chunk of matter off into space to become the Moon, thus creating conditions uniquely favorable for the emergence—eventually—of life on Earth.

One primary factor in creating these conditions, he says, is the large size of the moon that the (hypothetical) collision created. It is bigger, relative to its primary world, than any other satellite in the Solar System, and the gravitational effect of having so big a moon is to keep the Earth stable on its axis instead of being subject to disruptive axis-tilting caused by gravitational interaction with Jupiter and the Sun. It would be difficult for life to evolve on a planet where axial shifts kept transforming tropical zones into Arctic ones, and vice versa, whereas the relatively mild climatic effects stemming from Earth’s pronounced but stable axial tilt have contributed to an orderly development of terrestrial life.

Gribbin adduces many other factors responsible for the unique presence of us in the universe. Earth lies in the “habitable zone” of the Solar System, where temperatures are mild and liquid water is able to exist. Earth is shielded from further cosmic collisions by Jupiter, whose gravitational field gobbles up most wanderers that might otherwise come our way. Earth has just the right combination of organic compounds needed to develop carbon-based life. And so on and so on, a series of fortuitous events that added up to the wildly fluky creation of human life on Earth—a set of events so improbable, taken all in all, that, as Gribbin puts it, we are “certainly” the only intelligent life-form in the

universe. “We are alone,” he tells us, “and we had better get used to the idea.”

Well, no. I still don’t think so. That “supercomet” theory bothers me, because it sounds too much like the idea put forth by Immanuel Velikovsky in his 1950 book, *Worlds in Collision*. Velikovsky wanted us to believe that a huge comet burst forth from Jupiter a couple of thousand years ago, banged around in the Solar System for a while, and ultimately turned into the planet Venus, nearly colliding with the Earth in the process. The cataclysmic consequences of all this activity were responsible, he claimed, for such Biblical events as the slowing of the Earth’s spin that caused the parting of the Red Sea and allowed the Israelites to make their Exodus from Egypt, etc., etc., etc. Velikovsky had no astronomical or geological evidence for his theories, only the Biblical tales and some Mediterranean-area legends, and they were long ago discredited as pseudo-scientific speculation. The trouble is that Gribbin, who, of course, puts his big cosmic event much earlier in the Earth’s history, can’t adduce any real proof for it either. It’s simply the hypothesis on which all the rest of his theory depends. Using it as the foundation for the rest of his thesis doesn’t strike me as very different logically from employing the notion that Earth is the center of the universe because God wanted it that way. Either way, there’s no tangible proof to bring forth.

Even if we accept Gribbin’s collision notion, there’s still the problem of our uniqueness in a vast universe. There’s another logical jump here that I can’t follow. Let us stipulate that the conditions that made Earth habitable are rare to the point of improbability. Even so, in a universe so big as to be essentially infinite, the improbable and even the highly improbable are going to happen many times over. In just a few years we have found a great many nearby extra-solar worlds. There surely are billions more. Can it really be that our sort of life-form developed on only *one* of them?

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Gribbin is asking us to believe a negative hypothesis: that there are no inhabited worlds anywhere except right here. But there is no good way to establish a negative proof when there is an infinite amount of evidence to be sifted, since the existence of a single extraterrestrial civilization would destroy the whole thesis.

We are alone in the Solar System, yes: the Martians and Venusians and Jovians of the science fiction of my childhood belong in the realm of fantasy now. But I cling to my probabilistic belief that the universe is just too big to have generated just one intelligent life-form out of all that near-infinite multitude of stars and planets. If we haven't been getting visits or even messages from our neighbors out there, it's for the same reason: the universe is just too big. The inhabitants of some planet fifty or fifty thousand light-years away are too distant to be able to make contact with us, but that doesn't mean they aren't there.

John Gribbin believes that only by a miracle, a wild stroke of luck—a rogue lightning strike, let us say—did intelligent life emerge on our planet. It's an interesting idea and he defends it with carefully marshaled arguments. But I don't buy it. I don't like supposedly scientific theories that are founded on one-of-a-kind miracles. In a cosmos filled with a virtual infinity of stars and (as we are discovering now) a vast number of planets, the odds are, I think, that lightning would strike more than just once. I don't expect transgalactic travelers to drop down on my doorstep tomorrow—or ever, in fact—but I still believe John Gribbin to the contrary, that there are inhabited worlds out there, great multitudes of them. Is this a mere act of faith on my part, as Aquinas' theory was on his? Or is it simply an acknowledgment of overwhelming mathematical probability? I can't say. No one can. But I think the odds are on my side. ☺

MORE EDITING AND WRITING

editors, unedited

Last time we surveyed just a few of the writers who have had distinguished careers as editors (or were they editors who just happened to be some of our best writers?). I also invited an eminent panel of writers—**Robert Silberberg** <robert-silverberg.com>, **Gardner Dozois** <sf-encyclopedia.com/entry/dozois_gardner>, and **Jeff VanderMeer** <jeffvandermeer.com>—to offer some insights into their work as editors. Here's more of what they had to say.

How long after you started selling as a writer did you become an editor? Had it always been an ambition of yours?

SILVERBERG: Editing was never an ambition of mine, except perhaps for a brief while when I was in my mid-teens and starting to think I would never be able to earn a living as a writer. (I was wrong about that.) I began making my first sales in 1954, but edited my first anthology—I think it was *Time Probe*, with Arthur C. Clarke—in 1966. Clarke and I had the same agent and he put us together. After that, I began proposing anthology ideas on my own and sold a great many of them. I always thought of myself as a writer who did a little editing on the side, never as an editor who also wrote, or even as a writer-editor. My idea in doing the reprint anthologies was to set forth a canon of science fiction, the stories that had most impressed me as a reader and as a fledgling writer, the stuff that I felt SF ought to be. The nine-volume *Alpha* series was a good example of that: stories that I

thought were exemplary specimens of science fiction. And, of course, *Science Fiction 101*, an anthology of the stories that I had studied most closely and admired most strongly in my early days as a writer.

DOZOIS: I'd only been writing and selling for a year or so before I became an "editor" of sorts, writing evaluations of slush pile novels for Dell; it was a way of keeping myself (just barely) alive while living in mind-numbing poverty in the Lower East Side of New York. That led into me becoming the slush reader for the UPD group of magazines—*Galaxy*, *Worlds of If*, *Worlds of Tomorrow*, *Worlds of Fantasy*—which eventually led to me being tapped as Associate Editor when *Isaac Asimov's Science Fiction Magazine* started up. Within the first couple of years I'd begun doing anthologies too—my first book, *A Day in the Life*, was an anthology, sold before I'd sold a novel or collection, which is very rare—which led to my doing Best of the Year anthologies for Dutton when Lester del Rey dropped out of his Best series, which led eventually to the Best series I'm still doing for St. Martin's Press, which led to me being tapped as the editor at *Isaac Asimov's Science Fiction Magazine* when Shawna McCarthy left.

VANDERMEER: To my mind, the word "writer" always meant "a person of letters," and a person of letters would by definition not just write fiction but non-fiction, edit books, edit magazines, and in general be involved with the world of books. Writing has always been my most personal passion and the thing I would never give up of all the things I do. But editing came into my life just shortly af-

ter writing—I edited the high school literary magazine and promptly founded my own poetry journal, poaching Pulitzer Prize winners and National Book Award winners off of the University of Florida guest list. From there it was a short step to editing fiction magazines and then anthologies. As I've grown older, I see my role as three-fold: as a writer, as an anthologist who tries to contribute to the understanding and history of the field, and as a teacher who tries to pay it forward to the next generation (something I learned from, ahem, a certain JPK).

How has your editing helped your writing, if it has? How has it hurt your writing, if it has

SILVERBERG: I don't think there's any relationship here.

DOZOIS: It can be helpful to see the approaches to writing that other writers have, it can be helpful to see what they do right, and it can also be helpful to see what they do wrong. It has occasionally hurt my writing by making me hypercritical, so that I train my laser eye on sentences as they appear and blow them to bits.

VANDERMEER: To give just one example—coediting *The Weird* anthology gave me an intensive, immersive master class in one hundred years of fiction like what I write. Seeing what was actually pastiche and all of those different approaches, and absorbing all of that in such a short time span, has irrevocably changed me as a writer. I will never be the same, and that's a good thing. I really can't think of a way that it has hurt my writing, except when an editing project has taken up more time than I envisioned and gotten in the way of finishing a novel. On the other hand, people have a hard time seeing someone as more than one thing. So when I have a lot of anthologies out, readers tend to forget I'm a writer first and foremost, which stings a little bit. That's one reason why I'm glad I'm headed into a period of focusing mostly on fiction.

Do you think there are qualities that a writer/editor brings to the work that an editor who has never published does not?

SILVERBERG: Most of the great science fiction editors—John W. Campbell, Horace Gold, Anthony Boucher, Gardner Dozois, Frederik Pohl—had been outstanding writers before they became editors. As writers they had to internalize the standards by which the best SF is measured, and as editors they applied those standards. On the other hand, a lot of perfectly good editors, like Robert W. Lowndes and Larry Shaw, had only modest careers as writers, but they were perceptive editors all the same. And Howard Browne, who hated science fiction, was a good writer nevertheless, but in another field—mystery stories. At the moment, I can think of only one absolutely first-rate editor who never wrote any fiction at all, Alice M. Turner of *Playboy*, though Bob Mills and, later, Ed Ferman of *F&SF* were very good in their way. And Sheila Williams is doing a fine job without any history of writing fiction that I know of.

DOZOIS: Don't know if there is—except maybe an appreciation of how many things can go wrong with a story, and what hard work it is for how little reward.

VANDERMEER: Inhabiting something from the inside out is definitely a different perspective, but I'm not sure it provides an advantage or disadvantage. I tend to be taking off my writer hat and putting on the editor hat when editing anthologies.

What gives you the most pleasure as an editor? The biggest headache?

SILVERBERG: The biggest pleasure was pulling that Dozois story out of the envelope and discovering that although every fifth word was misspelled, it was a masterpiece. The biggest headache involved another story in *New Dimensions* that got bollixed at the printer after I had read the galleys. The author, when he saw the finished book, was irate and demanded that the entire edition be pulped and

reprinted. I tried to explain that the botch, which I regretted, had occurred after I had had my last chance to see the pages, and that he stood very little chance of getting the publisher to agree to his request. But he wouldn't shut up, and, since I was going through a difficult patch in my non-editing life just then, I finally told him to go away and leave me alone and never darken my mailbox with a manuscript again. Eventually I made peace with him, many years later.

DOZOIS: Biggest pleasure is finding really good stories, especially in discovering really good new writers that nobody else is appreciating yet and helping them reach a wider audience. The biggest headache is finding a story that *would* be a really good story except that there's something wrong with it—and then figuring out what's wrong with it and how to fix it; that's where the real skull-sweat comes in, but it's also very rewarding when you get it right.

VANDERMEER: I think three things give pleasure: reading and selecting stories, finding unusual and rare material that's brilliant, and the process of then seeing how it all fits together in a useful and interesting pattern. There's also the thrill of the hunt in tracking down permissions, but that is also a horrifying process at times. The biggest headache is probably dealing with difficult estates and degraded estates. We have a ton of horror stories regarding getting permissions for the stories in *The Weird*. That can wear you down mentally.

exit

When I was an aspiring writer, I had a skewed idea of what an editor does. Because the gatekeepers to my dream career in SF were raining rejections on my mailbox, I thought that their primary mission in life was to say *No!* to me and my fellow pretenders. At convention panels, editors would declare that the way to understand their tastes was to read their magazines. But not only had I been reading the magazines, I'd been *studying* them. And you know what? While I could get a general sense of what they might buy from reading, there didn't seem to be any rules. In fact, inexplicable outliers would regularly appear in their ToCs. Another thing editors tell aspiring writers: "Don't try to edit my magazine for me." By which they mean, "Don't decide that your story isn't an *Asimov's* story, or an *Analog* story based on your analysis of what we've been buying. Send it to us and let us decide."

It was maddening! Read to learn the rules, only you can't know the rules!

I realize now that I had a perspective problem. New writers obsess about the many difficulties of breaking into print. Editors and their readers, not so much. Notice that these illustrious editors mention rejection only in passing, if at all. Instead they describe the pleasures of discovering new talent, of working with their authors, and of improving the genre.

Despair not, oh ye unpublished! The editors are eagerly waiting for your best. They really are on your side. ○

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MEMORIALS

Aliette de Bodard

Aliette de Bodard lives and works in Paris, where she has a day job as a system engineer. In her spare time, Aliette writes speculative fiction. Her latest tale is part of her ongoing alternate history universe of Xuya, which includes previous *Asimov's* publications—"The Jaguar House, in Shadow" (July 2010), "Shipbirth" (February 2011), and "Starsong" (August 2012)—as well as the Nebula and Locus Award-winning "Immersion." Her latest release is the Xuya novella *On a Red Station, Drifting*, which is available as a paper book through Immersion Press, and as an ebook through all major retailers.

Cam finds Pham Thi Thanh Ha in her house, as she expected. By now, she doesn't question the aunts' knowledge or how they came by it. She does what she's told to, an obedient daughter beholden to her elders, never raising a fuss or complaining—the shining example of filial piety extolled in the tales her girlfriend Thuy so painstakingly reconstitutes in her spare hours.

Thanh Ha is a big woman, who must tower over her extended family—though right now, her cheeks are hollowed with grief, and the black band of mourning on her sleeve seems to have sucked all joy from her. "Younger niece . . . Cam." She hesitates over the name, a subtle way to make it clear that Cam had better get to the purpose of her visit quickly. "Be welcome here."

They sit in Thanh Ha's private rooms, away from the rest of the family—Cam has been doing this long enough to know what to pay attention to, and she's made sure to mention private business, delicately enough that Thanh Ha has sent away inquisitive aunts and cousins, and that even the wall-screens and the implants have been turned off, all the network connections quiescent, with no spike of activity that could relate to a recording or the transmission of one.

Thanh Ha pours tea in a practiced gesture, and the delicate smell of lotus flowers fills the room; Cam bows her head, acknowledging the hospitality. "My condolences on your loss, younger aunt."

Thanh Ha bows her head, and says nothing.

Well, there's nothing for it. Cam takes a deep breath, and says, "Heaven sends us wind and rain as it will, and we weather the storm as a family. Sometimes, however . . ." She pauses, then, as if questing for words. "Sometimes . . . the wind becomes trapped under our roof, and we must acknowledge the help of strangers to bear it away."

Thanh Ha's hand has stopped halfway to the cup; she raises her gaze, no doubt looking straight at Cam (Cam herself, of course, has remained properly respectful with her gaze cast down toward the table). "Your meaning," she says, as harshly, as impolitely as a Galactic—using the familiar pronouns reserved for inferiors or servants. "In plain words."

Not so traditional then—contaminated, as all of them, by the society they have found refuge in. Cam files the thought away for later, and says, simply, with the same brash impoliteness, “When your revered grandmother died, one of the doctors came to you—a Galactic one, with a face young enough to be one of your sons. He waited until you were alone, out of the presence of your elders. He said he was sorry, that perhaps it was inappropriate—”

She hears more than sees Thanh Ha’s sharp indrawn breath, and knows that she has her.

—that he knew she’d refused perpetuation, but surely she’d made a mistake, that everyone wanted to live forever, and that she hadn’t been all right in the end, not in full possession of her mind. . . .”

The noise Thanh Ha makes as she puts her cup back on its saucer is like a gunshot in the room. “I told him he was a fool. That my grandmother’s soul was in the Hell of the underworld, wending its way toward reincarnation, and that perpetuation was nothing but a record, a broken image of who she’d been, no better than a vid or a still.”

Cam puts her own cup back on the table, and leans with both elbows on the rough metal surface. “But still, you took the chip. You kept it, and breathed not a word to your elders. Not during the preparations, not during the procession or the burial, or the hundred days of burning incense for her soul.”

Thanh Ha’s hands shake, for a bare moment before she stills them. “Assuming this is true . . .”

Cam smiles. “Be assured that it is. I can produce the testimony of Doctor Elliott at the Marion Sims hospital, if this becomes necessary.”

Doctor Elliott meant well, Cam knows—they always do. He thought Thanh Ha would find a suitable virtual universe for her grandmother—give her a second life in which her grandsons and granddaughters could visit her, in a place where the rules are more elastic than in the physical world. For most Galactics, there is no shame in being a Perpetuate; or, indeed, much difference between Perpetuates and the living. Perpetuates hold bank accounts and run businesses, and even gather into families of their own. They can’t reproduce, or leave their host universes, but surely that’s such a small price to pay for life after death?

The problem is that Doctor Elliott isn’t a Rong—and didn’t see what someone like Cam or Thanh Ha would think.

“Fine. What is it that you want?” Thanh Ha asks.

She’s afraid—believing that Cam will give her away, denounce her to her elders, or hold this knowledge against her as blackmail. Cam breathes out, presents her blandest face to Thanh Ha. “You have no use for the chip.”

“You want it?” Thanh Ha’s laughter is as biting as lime juice on open wounds. “You think I’d give it up?”

“It’s a bother, isn’t it?” Cam keeps her voice pleasant, as if they were discussing the weather or their children. “You could snap it in two with a mere gesture, but that would be like tearing apart a picture of a revered ancestor—a sin that wouldn’t be forgiven. You could look for a virtual universe open to Perpetuates, and give her a new life, but you would have to admit to your elders what you have done. . . .” And they both know, here in the sanctuary of this room, that Thanh Ha won’t do that. “Or you could give it to me.”

Thanh Ha cocks her head, watching Cam like a cock ascertaining a rival’s intentions. “I could. But I don’t know you, do I? You could take it apart as surely as I would snap it—selling memories and feelings piece by piece to eager Galactics, like bits of code or war stories.”

She doesn’t say it, but the name of Steven Carey hovers in the room like a white-

garbed, unpropitiated ghost—all the interviews with Rong refugees Carey did, all the war memories he got out from elderly Rong, promising them something grand, something that would capture the experience of their loss—all that, culminating in the bitterness that is the Memorial. “I’m not like that,” Cam says, simply.

“And I’m supposed to trust you?”

She could say the truth, then; could say she doesn’t know who the aunts are, or why they direct her here and there; that she’s as beholden to them as Thanh Ha is to her deceased grandmother, except that the bonds are not of love or of filial piety, but something far coarser—greed and threats and the fear of losing everything. But the aunts pay her to lie, and so she does. “No,” Cam says. “You’re right that you can’t. But I’ll give you my word that I’m not after the chip to take it apart.”

Words mean something; they weigh, like contracts between families in the olden times. Cam uses them cheaply, for they’re the weapons by which she makes her way in life.

Thanh Ha’s hands twitch; her face contracts—but Cam is used to reading the myriad ways of the human heart, and she knows how this will go, as inevitable as a flood—that Thanh Ha will argue and make excuses, and protest about being a filial granddaughter; but that, in the end, she’ll yield to temptation, and give Cam the chip with her grandmother’s simulacrum rather than be left with her silent, unshareable guilt. That’s how it goes; how it always ends.

This is all why she hates herself.

Cam comes home late, with the chip wrapped up in her handbag: an unwelcome reminder of what she’s doing—of everything she’s embroiled in, the lies she keeps telling, day after day; the fear of what the aunts are doing, taking apart Perpetuates for parts, for memories. There is a healthy market for all of these, not least of which is the sim-movies Galactics so love—Perpetuates are plundered for unusual, exotic memories that can give frissons to even the most jaded of immersed viewers. It’s illegal, but until Perpetuates have joined a virtual universe and submitted to its law strictures, there’s little they can do to defend themselves. It’s almost natural, the aunts would say.

Cam knows the truth: that none of it is right—that Perpetuates might just be echoes of real people, but that nothing justifies selling them. But she likes the money too much to give it up.

She finds Thuy at her desk: her girlfriend is sitting on her haunches before the low table, delivering a staccato report to Daphne Reynolds, a Perpetuate colleague at her workplace—she speaks at a speed that seems blinding to Cam, but must surely be slow by Perpetuate standards. The flat’s bots have already cleaned the place, and the jasmine rice in the cooker has scented the air with its rich, promising fragrance—overlaid with the mingled garlic and fish sauce from the omelette in the pan.

After a while, Thuy finishes, and looks up. “Li’l sis.”

“Big sis. How did it go?”

“I think I solved the security flaw, but I could be wrong.” Thuy grimaces.

It never ceases to amaze Cam that Thuy—who has a doctorate in network security—can have so little trust in herself. By most standards, Cam is the one who is the family failure: she barely went past the minimum amount of studies Galactics impose on their citizens, and went from small, ill-paid job to small, ill-paid job in Landsfall. News trawler, compartment cleaner, low-level network support: she’s done them all, and has little to show for it but a memory of how much it hurts, to live cramped in a room with three other Rong students, and never knowing where the money is coming in.

“I’m sure it’s fine,” Cam says, coming closer and kissing her—drinking in deep from Thuy’s lips. “Did you see the physician?”

Thuy frees herself from Cam, and shrugs. She grabs one of the two coconut water

glasses on the table, and gestures to Cam to pick the other one—she's older than Cam, and has always had a tendency to boss her around. "Of course I did. Everything is normal. You fuss too much."

"It's serious," Cam protests.

"It shouldn't be. Having a child is a natural process." Thuy doesn't really appear to be in a mood to discuss her pregnancy; she sips at her glass, her gaze lost toward the floor. "How did your day go?" she asks.

Cam shrugs, feigning a nonchalance she doesn't feel. "As usual. Not much to tell."

"You never tell anything anyway." Thuy is convinced that Cam works for Galactic Intelligence; a lie Cam has carefully cultivated. Her other, outer cover for Mother is feeds writer, but any lie for Thuy has to be much closer to the truth. "Come on, drink your coconut water. I'm sure your day was as thrilling as usual."

She looks at Cam with such love—with such unmitigated pride—that it makes Cam's stomach churn. How can she tell Thuy that she does none of what her girlfriend imagines—that she's a thief and a taker of lives, that she subsists entirely on deceiving others and taking advantage of their wrecked lives?

She can't tell Thuy. She can't tell the child; and she's running out of options, as Thuy's pregnancy becomes more and more visible, twisting every aspect of their lives like woven cloth. But still, she forces herself to smile, in a way she knows is unconvincing. "Thank you."

As usual, Cam meets the aunts in the Memorial.

She doesn't know why they insist on this meeting place; though she suspects that part of it is mocking her and the choices she makes—for, after all, what better place than the Memorial for accusation of betrayals?

She takes a circuitous route to go there, casting an eye over her shoulder for policemen. It's absurd, but several times she's had the feeling of being followed—of seeing the same face too many times in the crowds that brush past—and she can't be sure, but there have been a few too many police aircars and shuttles parked near her. Or perhaps it's simply her guilt, pointing out every police presence in Landsfall that it can see.

These days, entrance to the Memorial is free, its upkeep funded by donations from rich Galactic families. Cam joins the queue of Galactics at the entrance—not many Rong there, she might as well be the only one. It's early morning on a day like any other; not the anniversary of any significant battle or the remembrance of any atrocities; and there are few people, all of them disinclined to make conversation.

Good, for Cam doesn't know if she could stand to speak.

In the physical reality, the Memorial isn't much: a squat building crouching above the servers that keep it alive—like a toad over treasure. Inside, a long spiral wends its way to the access chambers—as the virtual reality gradually asserts itself, the Memorial reminds visitors of the war and the Rong exodus. It starts as images on wall-screens, and, by the end, has become full three-dimensional representations that presage the virtual universe. This serves two purposes: to place the Memorial in "proper" context, and to transition the visitors from physical reality to virtual universe in a soft, non-intrusive manner.

Both are failures.

The context, like everything else, has been provided by Galactics, and they so gracefully elide their own part in setting off tinder to the war between the Western and Eastern Continent, presenting themselves as heroes who failed to save the benighted locals, and deploring the exodus even as they hide their part in causing it, or the atrocities their own troops committed on Moc Hau Tinh, under the pretense of keeping the peace.

The transition, if one isn't paying attention to the context, is anything but seamless, the virtual universe replacing reality in a series of jerks; and, at the last, the slimy, cold feeling of electrodes being fitted over one's head by bots; the uncomfortable sensation of every muscle crumpling at once, as if one were a tree that had just been felled.

And, at last, Cam stands in the Memorial, shivering and shaking and attempting to bring numbed muscles back to wakefulness. Around her, the other visitors are straightening: carrying flowers or paper cards in their hands, little keepsakes bought from the online vendors as they wended their way upstairs; offerings to honor the dead veterans, the innocent victims of the exodus—dead children, Cam's history teachers used to say, as if dead children were somehow more worthy of remembrance and pity than everyone else who perished in the fall of Xuan Huong, in the invasion of the Eastern Continent.

Cam's hands, as usual, are empty. She leaves the arrival area without a backward glance, heading deeper and deeper into the Memorial.

In a way, the Memorial is Xuan Huong—it's the city on the eve before the war, its streets crisscrossed by a flood of aircars and private shuttles, its buildings rearing upward, like gilded spears held against the Heavens—and the shadow of the orbitals overhead, the houses of the rich and powerful looking down on the planetary bustle with amusement.

In so many ways, it's not Xuan Huong.

It's not the city that Cam's grandmother waxed lyrical about, not the memories that her mother carried away when she left as a child in her parents' arms. It's a city of fashionable, glitzy hotels frequented by the Galactic expatriates; of quaint and exotic temples, with Buddhist rituals described by someone who couldn't understand what it means to believe in the bodhisattva Quan Am, in the weight of one's sin and in reincarnation. Its family feasts are seen through the eyes of Galactics, who cannot comprehend the value of food or of filial piety; even its small alleyways are sordid and unclean instead of being families' beloved homes—in every way it's subtly and jarringly wrong, a travesty of what the Rong deem precious.

He meant well, is what the Rong will say about Steven Carey when they feel charitable. He genuinely thought that his project would help the Rong exiles, that it would bring their plight to the knowledge of the world (as if their plight wasn't real until the world learnt all about it, all its sordid details and secrets shrouded in grief).

Cam walks up Le Loi Street, with its overblown temple to the God of War Quan Vu; and its ghostly Galactic women shadowed by their Rong attendants—toward her meeting with the aunts.

They're always in the same place: in a small alley behind the old Galactic Ansible Station, seated on plastic chairs in the small, battered stall of a food-seller, with bowls of steaming soup in front of them—the food smells of beef and anise star, the only thing within the Memorial that doesn't feel processed through a Galactic mindset. They're squat and dark-skinned, with the reassuring solidity of visitors to the Memorial—not the ghostly, shimmering avatars that are part of the virtual universe.

Of course, they're not aunts—probably not Rong, and maybe not even women. The Memorial, like all virtual universes, comes with avatar options, and it's an easy enough thing to color flesh differently, give a different timber to a voice or even change one's species entirely and appear as a winged horse or a lion, though Cam has never seen the point of any of it.

"Child," the eldest aunt says. "Sit down."

Cam doesn't. It's such a small, pathetic gesture, such a doomed attempt to assert her authority to them. "I left it in a holding box at the shuttleport. Number 868."

"As usual." The eldest aunt smiles, an expression that doesn't quite reach her eyes.

"Well done. You're worth every credit we pay you, child." She gestures again to the chair, the only one unoccupied—it's red, the color of good fortune and good news, an uncomfortable reminder of New Year's Eve and family reunions. "Won't you sit down? The soup is good."

"Which can't be said of many things here," a younger aunt says, her face set in a frown.

"Now, now, ssh," the eldest aunt says. "This child doesn't need to hear old women complaining, she's too young."

Cam isn't young anymore—past the age to contract a marriage, past the age to straighten her life—past the age where she'd swallow lies, unthinkingly. But she says nothing of that.

"I trust everything went well?" the eldest aunt inquires, conversationally, with the same casualness Cam's own aunts use when asking about her work.

Cam thinks back to Pham Thi Thanh Ha—to the expression on her face as she handed over her grandmother's chip against Cam's payment—that face twisted halfway between guilt and fear—knowing Cam, in spite of her sweet words, couldn't be trusted. "It went as expected. There was no particular trouble."

"About payment . . ." Cam says.

They smile at this, as if they knew exactly how she felt inside—all twisted up and nauseous, taking that kind of pay because she has no choice. One of the middle-aged aunts opens her hand, presenting to her a sheaf of paper notes: the old ones with the image of the president stamped upon them—a sharp-faced man, wrinkled and bowed with the knowledge of the impending war. "All there," the middle-aged aunt says. "A million credits, as we agreed."

It's good money—very good money, when Rong struggle to make even a hundredth of this—when so many of them own dingy restaurants in dingy parts of Prime, or work as private cooks for the richer exiles, saving every single credit to make their children's lives better than their own. It's hers, under two conditions: that she do her job, and keep her mouth shut about the aunts.

Both of which, of course, are getting harder and harder.

Cam reaches out for it, closes her hand over it—feeling, for a second, the coolness of the aunt's skin against her own, as dry as the scales of a snake. The notes melt like sugar onto her skin, and she doesn't need to connect to the network to know it's gone into her bank account.

"Don't thank us," the middle-aged aunt sounds amused. "Now, we have another job coming up, but it won't be for a week at least, which should please you. Time for you and your girlfriend to enjoy yourselves with your family."

Cam isn't surprised—of course they would keep a tight watch on her and her life. Of course they have other agents, to pick up the chips from the holding boxes. Of course they'll know about Thuy; that the day after tomorrow is her grandmother's death anniversary; that, like every year, Cam and Thuy are headed toward her family's home in Greenhaven, to pay their respects at the ancestral altar.

What comes next, though . . .

"And the baby," one of the younger aunts says. "Don't forget the baby!"

The baby. How do they know—? The baby is a secret; something not even Cam's mother knows about, a fragile promise, a prayer for a better future. Cam's hands clench, a movement she can't control. "How—how do you know?"

"It's all in your files, dearie," the middle-aged aunt says. "Don't worry, we won't tell anyone."

They'll hold this, hoard it like a tool they might use—they'll feed on anything, any scrap of Cam's life that they can turn against her. "I know you won't tell," Cam says, dryly, fighting back anger.

The middle-aged aunt laughs, a rasping sound like leather tearing itself apart. She gestures toward the soup. "You should eat that, before it grows cold." Another of the aunts is noisily slurping noodles from her bowl, with an expression of satisfaction; it would make Cam hungry, in other circumstances.

"I don't want soup," Cam says.

"Oh yes, I forget," the middle-aged aunt says. "You're always angry after your jobs."

"I'm not angry," Cam says.

"Leave the child alone." The eldest aunt frowns. "Forgive us. You know the old can be . . . intrusive. Of course, we have no lives of our own anymore, so we take what distractions we can, child."

"I see."

A ghostly waiter brings three-color dessert pudding in glass cups—the mixture sports a lurid, aggressive green, nothing like the appetizing color of pandanus leaves, and even its red beans are the dark color of blood. The smell is . . . off, somehow, though Cam would be hard pressed to pinpoint why; and, as the bowls of soup are swept up, only that sense of wrongness remains.

Not for the first time, she curses Steven Carey and all his work.

The eldest aunt dips a spoon in the cup, twirls it around an invisible axis. Cam hears a sound like ice cubes crushed together, though it's impossible anyone could have such strength. "You don't see," the eldest aunt says. The colors of the pudding are melding and running together, the green fracturing into a dozen disharmonious threads, reminding Cam of nothing so much as network cables cut off at the root. "But never mind, child. I'll tell you about this next job, it'll keep your mind nice and sharp."

"I don't—" Cam starts, and then stops, aghast at what words might come out of her mouth. *I don't want my mind sharp. I don't want to hear about this next job. I want to be rid of you.*

The eldest aunt is watching her, and so are the others—cruelly amused, like birds of prey watching a mortally wounded tiger stumble and pick itself up, time and time again.

No. She can't afford to antagonize them. Slowly, carefully, she says, "Fine. Tell me about the next job."

Cam leaves late for Greenhaven—not a surprise, as the meeting with the aunts took more time than she'd planned. She'd expected Thuy to still be around in the flat, but she's gone, leaving a message on the console that she hitched a ride with Cam's mother, and telling Cam not to forget the basket of fruit they special-ordered from the spaceport.

Cam is past the Lynbrook Bridge and into Westborough province before she notices the police shuttle trailing her. At first, she thinks nothing of it; traffic is dense, and the police are everywhere. As she veers upward, onto the high-speed lane, Cam sees the shuttle do the same; and when she lowers her altitude again, to catch a bite at a rest area halfway up a skyscraper, the shuttle is still there.

It's nothing unusual—Cam has been stopped more times than she can count, simply because she looks different, because she's driving a new, expensive car that most Rong shouldn't be able to afford. Mother always hunched over when that happened—speaking in short, heavily accented sentences; consumed by the fear that Prime would send her back. Cam isn't afraid; or she wouldn't be, if she were at ease. If she didn't know in her heart of hearts that she walks enshrouded in lies, every word that she utters lengthening the shadows under her feet.

She sits at the terrace of the skyscraper, watching the dance of aircars below her—dense traffic toward Landfall, as always, people going to their jobs, to the Festival of Arts in Lynbrook, to white-walled, disinfectant-clean supermarkets where the smell of bleach overpowers that of meat or fish.

"Excuse me, miss?"

Towering over her is the figure of a police officer—one and a half times her size, easily, with flaming hair and a spattering of freckles, with skin so pale and translucent it's tinged with the red of blood vessels. Her heart leaps in her throat—remains stuck halfway there, beating at a frantic rhythm. "Yes, Officer?"

The policewoman—who introduces herself as Lieutenant George—sits down, putting her coffee cup by Cam's right hand. Cam inhales the sickening, bitter smell of the coffee at the table, stifling an urge to retch or run away.

"What do you want, Lieutenant George?"

"To speak of Perpetuates."

"I don't know what you mean." Cam has been lying for long enough not to let anything she feels show on her face.

Lieutenant George's eyes narrow. "Let's not be coy with each other, Miss Nguyen. I am speaking of Rong Perpetuates—rare and precious by the standards of those who trade in memories." She smiles. "I'm sure you know what I'm speaking of."

It's a dance that's all too familiar to Cam—she's done it so many times she knows it all by heart. But knowing doesn't help, doesn't do anything save make the ending more inevitable—for, in the end, this is no bluff—this is all about who holds power over whom.

She forces herself to sip at her tea—sip after sip after sip, burning her lips and her tongue, the bitter taste sliding down her stomach.

Lieutenant George says, "Rong Perpetuates, as you can imagine, are eagerly sought after—they fetch high prices on the black market, and I'm sure you're well aware many of the recent releases in sim-vids were enhanced by Rong, especially the older generation. There's something about the anguish of war that makes them . . . irresistible."

The anguish of war—how casually she dismisses everything that Cam's family went through, in a single, weaselly Galactic word that means nothing. "I don't watch sim-vids," Cam says. She forces herself to remain still in her chair, but she sees Lieutenant George smile—showing her teeth like a shark that has sighted prey.

"You don't say." Lieutenant George pauses, nudging her coffee cup out of the way—as if imparting a secret confidence to Cam. "Anyway, there have been . . . rumors in the black market. Rong Perpetuates being harder and harder to find—which leads to my presence here, and to you, Miss Nguyen."

Cam says nothing. She's seen the trap; perhaps, if she holds still for long enough, she might dodge its jaws—perhaps . . . foolish, Thuy would say, but Thuy isn't there, no matter how desperately Cam wishes for the weight of her presence.

"I'll be blunt," Lieutenant George says—as if she weren't blunt enough already, with all the subtlety of a bomb. "You run errands for a well-organized gang, Miss Nguyen, and I have enough evidence to send you to Active Re-education for a while."

But she won't. An icy clarity descends over Cam's world, each thought as clear and as brittle as pulled sugar. "What do you want, Lieutenant?"

Lieutenant George smiles. "I have no interest in the riffraff. I want the people who pay you; and you'll help me."

This is a dance Cam has done often enough, with so many other people—enough to know every one of its steps by heart. "Why should I help you? I'll end up in Active Re-education anyway, and it'll be far less danger to me. As you said—they are a well-organized gang. I doubt they are fools."

Lieutenant George shakes her head, dryly amused—she's not stupid, else they wouldn't have sent her. "There are . . . dispensations that can be made. Ways and means of acknowledging your help to the Galactic police."

"Immunity," Cam says, putting both elbows on the table.

"I can't offer immunity. As I said—I have evidence. You can't erase that."

A bluff. "A police lieutenant is a powerful individual. I'm sure you can arrange things." Cam keeps her voice even. "Evidence—assuming there is any—can be lost. Destroyed." If it were just her, she'd give herself up, to atone for what she's done—but there is Thuy. There is the unborn child.

Lieutenant George grimaces. "Six months in Active Re-education."

"Two months," Cam says, reckless—and, when silence stretches, knows she's gone too far.

"Three months. Far less than you deserve, Miss Nguyen." Lieutenant George's voice is filled with disgust. "The offer is as it stands."

Three months. It's not so much, all things considered—three months on some deserted planet, away from all communications—from Thuy, from the baby. But it's still time that will appear on her papers; that will hamper her in her search for another job—of course, supposing the aunts don't take her down with them. She wouldn't be surprised to know they have a contingency plan for everything from sickness to betrayal.

When Cam doesn't answer, Lieutenant George shakes her head. "Think on it. Three months, and some risk to your precious person. Or five years without risk—that's the minimum you'd get for trafficking in Perpetuates, and I would be pushing for more than this, personally." She rises, cradling her coffee cup against her chest. "I've left you my contact details. Tell me within the week what your life will look like in the next few years, Nguyen Thi Cam."

Cam arrives late, and finds the family gathered in the kitchen. Mother is putting the last of the rice cakes into boiling water with Father by her side, who interjects advice and reproaches as she slides each cake into the huge cooking pot. Thuy and Cousin Hanh are rolling up the twine that served them to wrap the cakes, while Cousin Vien is putting plates and bowls into the automatic washer. The uncles and aunts are nowhere to be seen—probably they're in the living room, tidying up offerings on the ancestral altar.

"Li'l sis," Thuy nods to Cam. "Sorry for not waiting."

Cam shakes her head. "No, it's me. I had an appointment I couldn't put off." She puts the basket of fruit on the table, and greets her mother and father, and then the cousins in order of age. "Sorry for arriving late."

Mother snorts. "Plenty of hands to help with the cooking, even though most of them are rather clumsy." She peers at the basket, curious. "What did you girls get?"

Dragon fruit and mangoes—fruit that have grown ever so expensive as the years pass, making the exodus a distant memory in the minds of the elders. None of them grow well on Landfall, and it takes a dedicated environment and a crew of biologists to make sure the other crops don't cannibalize them before they have a chance to ripen. "Oh, you shouldn't have. It's too expensive, children," Mother says. Cam knows she's well pleased in spite of her protests, to see her daughters and nieces cajoling her with delicacies; all the signs of happiness that Heaven has decreed, the rewards of old age.

Father peers at the fruit, and nods, gruffly. "Go put a few in a plate, would you? Your grandmother could use nice things."

After Cam has left her offerings on the ancestral altar, everything seems to dissolve in a whirl of activities: she walks the gardens with Mother, seeing how the bots prune the trees and collect herbs from the hothouses; she and Cousin Vien help Father install his newest network connection, and get a membership into a virtual universe for Encirclement fanatics. And, all the while, she skirts around the truth, jokingly speaking of security contracts to Mother, just as she does with Thuy—lies, every word out of her mouth, every rivet in the wall of her life.

On the second day, they hold the remembrance of Xuan Huong.

They stand in silence, bowed before the altar—watching the holo of Grandmother's face, the furrows of grief traced on her skin; the bowed shoulders, as if she still labors under the weight of exile even among the ancestors. "We thank you for your blessings," Mother says, lighting a stick of incense and bowing three times. "For the gift of food, which we took with us to a new planet. For the gift of money, which gathered us all to escape the war. For the gift of love, which did not die with Xuan Huong."

They're meant to meditate on Xuan Huong: Mother and Father and Cam's aunts and uncles all have tears in their eyes, thinking of a city they knew that is now cut off from them; and of all the dead littering the streets like rice shoots cut off before they could bear food.

Cam finds her mind drifting to the Memorial—to the aunts and the sound of ice being crushed against a glass, faster and more casually than should be humanly possible. . . . She wonders what Grandmother would have thought of her, of what she does; if she'd have forgiveness in her heart for her wayward granddaughter. But, of course, there's only the darkness of her own thoughts, and her own worries about the future.

On the last evening of the death anniversary, Cam and Thuy find themselves alone in the living room, scraping food off plates before piling them into the kitchen.

She wants to tell Thuy about Lieutenant George, about the choice between flood and fire; but she can't—she's trapped by her own lies, by the weight of her own failures.

Thuy, though, is nothing but observant. "Is anything wrong?"

"It's work-related," Cam says—and watches as the words dry up in Thuy's mouth.

"Oh. I'm sorry. I shouldn't have asked."

"No, it's all right." Cam hesitates. "Only—I might have to go away for a while."

"On a mission?" Thuy's eyes gleam with that painful, earnest enthusiasm that Cam finds hard to bear.

"Of a kind." Cam sighs. Nothing will be pleasant in the future, no matter how she turns it. "I—It might be a long while. The child—"

Thuy's hand strays to her belly, rubs it as if for luck. "You won't be back for the birth."

"I don't know." Cam feels as if she wants to cry, but all water seems to have been wrung out of her. "Ancestors, I don't know." Her hands are shaking, so hard that the plates she's carrying chink against each other.

"I see." Thuy says nothing for a while; she doesn't look happy.

As they take the last of the plates out, Cam steals a glance at the ancestral altar—Grandmother's gaze seems to follow her, wherever she goes. "Do you think—" she pauses, hesitating. Grandmother scrapped and begged and did what she had to, to get her family out of Moc Hau Tinh before war made the planet inaccessible—in so many ways, they know that they'll never be as worthy as her. "Do you think she'd approve of us?"

Thuy gathers chopsticks in her clenched hand, weighs them, thoughtfully. "Of what we've grown into? Every generation is less than the one who came before them; and more, too. Every chain of hands, reaching back to the beginning of time. . . ." She frowns, rubs her belly again. "Li'l sis . . ."

"Yes?"

"About the birth—we'll talk about it later. I know it's not easy."

You don't know anything, Cam thinks, and blinks furiously, to make the world clearer. "I'm sorry." The plates are wobbling in her hands; carefully, she sets them on the ground, and stares at the ancestral altar, seeking words that have deserted her.

"Oh, Cam." Thuy covers the space that separates them in a heartbeat, and kisses her, hard. "You're a fool."

"So are you," Cam says, struggling to smile.

They finish the rest of the cleaning in silence, and tiptoe back to their room. Later, Cam lies in bed by Thuy's side, staring at the ceiling, and thinks of what lies ahead. She thinks of Lieutenant George; of the Memorial and the aunts—and it all slides with her into sleep, melds and merges into a confused jumble, with the noise of bombs and the sound of spaceships lifting from the spaceport, instants before the Western Continent soldiers march through the streets of Xuan Huong—into Grandmother's face, the old woman staring at her as if weighing her worth; before she turns away, and walks ahead into darkness. . . .

Cam wakes up with a start, shaking her head to dismiss the last of her nightmare. Outside, it's still night, and she can smell the just-cooked rice porridge from the kitchen, and hear Mother shuffle about, no doubt looking for a bowl and a spoon. She'll get up and go into the kitchen, and say more lies about coming back home for work, that she has an important job to do at her company, that they need her to save the project. . . .

Lies.

But not for long; not anymore.

It's all the same, the same as it ever was: Cam walks down the streets of Xuan Huong, breathing in the sweet, sharp smell of apricot trees—garlands of Tet yellow flowers drape the streets, and the year is that of the Yin Wood Tiger, the year of the fall. She brushes past young girls in five-panel costumes, giggling at Galactics in shirts and trousers: the streets are pristine, not even stained by flower petals, unreal—as ghostly as the artificial intelligences populating them.

She can't help but glance at her hands as she walks: the sniffer Lieutenant George has given her is invisible in the Memorial, though it glowed red against her skin when George injected it into her palm. *Transfer it with a thought sequence*, George had said—running through the steps with Cam, over and over again. *It'll embed itself in the target's hand, and start emitting—we'll be able to follow them wherever they go. We'll arrest them when they exit the Memorial.*

She didn't tell Cam to be careful, or to come back safe—of course she wouldn't. Of course she doesn't care, one way or another.

In the alleyway behind the Ansible Station, the aunts are waiting for her, though there are no bowls of steaming soup in front of them. They're dressed differently, too—wearing what looks like Galactic garb, long flowing dresses that hug their frail bodies, outlining curves they ought not to have. It feels . . .

Wrong, Cam wants to say, but the words don't get past her lips. Instead she wonders, for a heart-stopping moment, if she's given herself away; if George's sniffer can be detected on her, if that's the reason why the aunts have changed their behavior. But no, that is impossible; she hasn't activated it yet. The aunts can't know. . . .

She pulls a chair; hearing it scrape against the pavement. "No soup today?" she asks, keeping her voice light.

"It's too early for soup, child." The eldest aunt smiles, as toothy as a tiger on the prowl. "Tell me how it went with Nguyen Thi Sao."

Cam shrugs. "There isn't much to say. I left you the chip in the shuttleport. Holding box 121."

"Good," the eldest aunt frowns, and the air around her seems to tighten in menace. "That certainly was fast. I expected you to have more difficulties."

Cam shakes her head, not trusting herself to speak. It was hard, in truth—harder than it's ever been, to sit in a chair and lie and cajole, knowing that all she had to do was wait a few more days, a few more hours—and that she would finally be free of them.

"About payment," she says—and waits, her heart hammering in her chest, for the eldest aunt to extend her hand across the table, for the exchange of money to take place. She doesn't glance at her own hand.

The eldest aunt does not move. That's it, then; she's overplayed it; been too flippant, too confident—she's given the game away. She shouldn't have . . .

Finally, the eldest aunt shakes her head, and slowly extends her hand to her, with old-fashioned notes on her palm. Bracing herself, Cam reaches out—there's a tingle as the money changes hands, and another tingle as the sniffer leaves her and attaches itself to its target.

The eldest aunt is frowning, looking at her hand as if something were bothersome—there's nothing here, she can't possibly see it—it's impossible. . . .

"Mmm." The eldest aunt compresses her lips—tightens her hand hard enough to crush whatever is inside it. "Is there anything else you want to tell us, child?"

Cam clamps down the first flippant response that comes to mind, and says, instead, "No. What about the next assignment?"

"We'll contact you." The eldest aunt is still staring at her hand, as if she could actually detect the sniffer, which is impossible. She and her companions rise, and walk away without a backward glance.

Cam remains behind, struggling to control the mad drumbeats of her heart. They haven't seen anything; they can't possibly have seen anything. . . .

She waits for the aunts to drop out of sight—then she takes a deep breath, and activates the sniffer.

Nothing happens—at least, nothing that she can see, but she knows that outside the Memorial, something has come online in Lieutenant George's van—that her team is now assembling, ready to track the aunts; to make the arrest George hungers for, the one that will make the world a little safer for Perpetuates. Cam has done her part. She can turn back, and leave the Memorial much as she came into it—empty-handed, braced for the worst to happen to her.

And yet . . .

And yet she has to know. And yet, somehow, she finds herself walking after the aunts—hearing the same litany echo in her skull until it takes the place of everything else. She's in the Memorial. In a virtual universe with no set rules for death. There's nothing they can do to her; nothing that will terminate her existence or harm her for more than a few transitory moments. Nothing. Unless . . .

Unless they've managed to hack into it.

No. That's impossible. No one can. . . .

But they're the aunts—whoever they are, they know everything, have access to all the files, to all the details of Cam's life. Surely, hacking into a virtual universe, even one so tightly circumscribed as the Memorial, isn't beyond their powers?

She walks in sunlight, into little alleyways filled with compartments—with houses that advertise their wares on battered holo-screens, past bots that scuttle into boltholes. A sleek aircar zooms by, stopping briefly to extrude a counter and dispense some crab noodle soup to a middle-aged woman.

This far into the simulation, Galactics are not there at all—there are only Rong, from the mechanic who carries bots slung over his shoulder to the seller of barbecued pork sandwiches; from the young man lost in his virtual games, to the old woman descending from an aircar, attended by her whole family.

The smell of food is overwhelming—of steamed rice and garlic and fish sauce, of broth simmering away in the myriad restaurants she walks by. Cam should be on her knees by now, gagging with the wrongness of it—but she's not.

Cam turns a corner, still struggling to work out what is wrong, what she's not seeing—and all but bumps into the aunts.

They have stopped—are waiting for her, their arms crossed over their chests. The eldest aunt is a little apart from them, holding out her hand, in which flashes a red light—George's tracker made manifest.

It's impossible—they shouldn't . . .

"Did you think we wouldn't see, child?" the eldest aunt asks. Her voice is deceptively mild; she might have been talking about the weather.

Cam stops—no use waiting for help, for it won't come. She's alone now, and in spite of the innocuous environment she's never been so frightened in her life. "I had no choice. I could come down with you, or I could follow their orders."

The eldest aunt peers into her hand, thoughtfully. "I see. Galactic police coding. Shoddy work—you can tell, it's full of corrupt packages."

Abruptly she's standing by Cam's side, pressing down on her shoulder with what seems like little strength; but it feels as though something is tearing inside her. The eldest aunt is only a small, diminutive woman; how can she be so strong—how can she—?

"You *know* I can't stand on your side." Cam forces the words out between clenched teeth—the eldest aunt is still pressing on her, and gradually her body is buckling, her knees giving way, bowing her closer to the ground. "For Heaven's sake, you buy Perpetuates to take them apart!"

"And you're nothing." The eldest aunt's voice is contemptuous. "You were happy enough to take our money, and ask no questions, and all of a sudden you decide to betray us? That won't do, child."

Cam is kneeling on the ground now, brought down by the weight of the eldest aunt's hands on her shoulder; and her breath comes in gasps and shudders. She's truly, desperately alone—Lieutenant George, even if she suspects something is wrong, won't react, won't do anything to save her—she's made it clear enough what she thinks of Cam's acts.

As Cam struggles for breath, for words, she sees everything with preternatural clarity—every detail of her surroundings, the bystanders throwing curious glances at the group stuck in the middle of the wide, paved street—the eldest aunt's robes,

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billowing in the breeze; every little stitch of the cloth, every cut of the scissors and every little embroidery on the hem of the sleeves—they're not Galactic patterns, but rather a thin chain of lotus flowers, going all the way around the hem like prayer beads.

Rong. They're Rong patterns.

And she sees, then—not with her eyes, but with her heart and mind. She sees that the aunts are wearing the clothes her grandmother wore, every day of her life—a melding of Galactic and Rong influences. Those are the clothes her friends' grandparents wore, the ones they brought from Moc Hau Tinh when the planet burnt in civil war.

And, around her . . .

She doesn't look around her. She doesn't need to. She knows that everyone she saw—the noodle soup seller, the seller of sandwiches, the housewives in the aircar—they all have the solidity of real, living people.

"You're Rong," she says. "You're all Rong."

"Of course we're Rong," the eldest aunt says. "What did you think we were, child?"

Cam kneels, breathing in the smell of garlic and fish sauce and all the myriad things of home. Everyone in the street seems to have gathered around them, a circle of pressed people that is making her dizzy—she catches bits and pieces, fragments of faces that look familiar and yet are not—

No.

She sees them. She sees all of them, clustered at the back of the crowd—Thanh Ha's grandmother, and Pham Huu Hieu's brother, and Le Thi Quoc's mother, and all the others she's bargained away from their families, given flesh and blood in the Memorial, a feat that should have been impossible.

"Perpetuates," she breathes, knowing that this, too, is true. "You're all Perpetuates."

"This is our home," the eldest aunt says. "The place we have made for ourselves." She's withdrawn from Cam; stands staring at the streets around her. Cam sucks in breath through burning lungs, struggling to make sense of what she's seen.

They . . . they have hacked the Memorial *from within*. They have hidden themselves in its codes and processes, and built their own enclave. They have . . .

They're not supposed to be here at all. No wonder they hide; no wonder they tell no one what they are or what they are doing. The Memorial is not a virtual universe open to Perpetuates. It is a museum: a place to visit, not a place to live in or be hosted—not a place where you're allowed to painstakingly build your own home city within the city, year after year—

The enormity of it shocks her—that Perpetuates should have the power and desire to take the Memorial back; to expand, layer after layer, into Steven Carey's masterwork, and claim it back for themselves. . . . That she should have helped in that, all the while thinking that she was helping the aunts take Perpetuates apart. That she . . .

That she sold the aunts out, just as she sold off the chips; gave them away with scarcely a thought to ensure her own, selfish future. . . .

It's too much to take in all at once.

"I'm sorry," she whispers—in Rong, using the pronoun reserved for young, ignorant children. "I didn't know."

One of the middle-aunts speaks, in the growing silence, "Not so easy, is it, to find out what you have done?"

"I'm sorry," Cam says, again, knowing the words to be meaningless—cheaply bandied weapons, promises as brittle as burnt clay.

She stands, shivering, in bright sunlight in the city of Xuan Huong—not the quaint place of Steven Carey's fantasies, not the poverty-ridden, powerless victim of

the war seen through Galactic eyes; but the home of Mother and Grandmother and all her ancestors; the bustling, multifaceted city that shaped her people and her family, the continuation of the history that she and Thuy carry with them, words and images carved into the grooves of their hearts.

And she knows, then, with a certainty she's never felt before in her life—she knows that she'll pay whatever price needs to be paid to preserve this; to make sure that the Memorial still contains that corner of living history; the thread, elusive and thin and yet more solid than any steel, which still binds the Rong to their homeland—the thread that is the truth of the war and the truth of their past.

Cam holds out her hand to the eldest aunt. "Let me make this right."

The eldest aunt turns, the sniffer glowing in the palm of her hand—the color of maple leaves and New Year's lanterns. "Let me help," Cam says, again. "If I take it from you—"

"Why should we trust you?" the eldest aunt asks. "You've amply demonstrated that you'll betray us, time and time again, when your own life hangs in the balance."

Betrayals—of the Rong, of the Rong Perpetuates, not once but many, many times—selling her people to what she thought was a criminal ring, time and time again—betrayals, and selfishness, and greed. . . .

Cam spreads her hands—speechless, for once.

"What do you advocate?" the middle-aged aunt says.

"Isn't it obvious?" The eldest aunt is standing once more by Cam's side, one hand casually raised, only a few inches from her throat. With a mere gesture, she could crush Cam's windpipe—this deep into the Memorial, Cam doesn't doubt that she'd die for real. That Thuy would wait and wait, and raise a child on her own—and be unable to tell that child anything, anything at all about Cam that would be meaningful. "Silence is gold; and the only silence we can trust is that of the grave."

"She's Rong," the middle-aged aunt says.

"She's nothing. She lies and cheats for a living."

"We all do, don't we? We all lie and deceive and cheat, elder sister—as we did to this child."

"Not for selfish motives."

"Our own survival, you mean?" The middle-aged aunt's smile is bitter. "Tell me that's not selfish. Look me in the eye and tell me it's not."

The eldest aunt says nothing.

"Please," Cam says. "Else they'll come in and find you."

The eldest aunt's gaze turns to her; and it's Grandmother's gaze, dark and unfathomable, weighing every inch of Cam's life from beginning to end. "Do you know what you're asking for, child?"

Cam thinks of Lieutenant George; of re-education—and of Thuy and their child, and of each generation being less and more than the one that came before them. She had so many ideas of what she wanted; and all of them, after all, turned out to be wrong. For, when she does this—when she walks out of the Memorial with the sniffer still in the palm of her hand, looking properly downcast and ashamed and afraid for Lieutenant George—her life will once again revolve on lies; once again be shrouded in the half-truths and evasions she's become so good at.

What matters is this: they won't be the shadow lies, the worms eating at her from within, but the other kind of lies—the ones that give weight and heft and meaning to the secret part of her life.

"Yes. Of course I know what I'm doing." And, reaching out, she takes the eldest aunt's hand in her own, and stands in sunlight on the eve of the war, in the city of her ancestors—feeling the dried, gnarled flesh against hers like a fount of strength for the future. ○

Ian McHugh's stories have appeared in publications that include *Analog*, *Daily SF*, and *Beneath Ceaseless Skies*, as well as previously in *Asimov's*. His first short story collection, entitled *Angel Dust*, will be out in 2014. You can find the author online at ianmchugh.wordpress.com. His latest tale for this magazine takes us to a distant planet and gives us the chance to read a young field scientist's . . .

EXTRACTED JOURNAL NOTES FOR AN ETHNOGRAPHY OF BNEBENE NOMAD CULTURE

Ian McHugh

Journal: 244813.03 (DAY 7 #2)

On the move, the caravan inevitably kicks up a lot of dust. The hunter-males walking up front are no more than indistinct silhouettes from my already habitual vantage at the rear of the line. I couldn't tell which of them it was who raised both arms to point ahead and gave the first cry of, "Yoom!"

The rest of the clan echoed the call. The word translates approximately as, "Oh, happy thing!"

"Yoom!" boomed Bubba, beside me.

"What is it?" I asked.

He peered down at me from his three-and-a-half meter height, craning his neck to see past the fringe of his leaf collar. "A river," he answered. He drummed woody fingers on the sides of his torso. "Yoom!"

His armaments clanked with the movement of his arms. Like the hunter-males, Bubba and his neuter-brothers wear harnesses hung with a variety of ranged and

close-quarter weapons. They and the non-related hunter-males traveling with the clan refer to each other mutually as "hadhagnug," meaning, loosely, "threat." Even with the weapons they carry and the size of the male neuters, the term is much easier to reconcile with the hunter-males than with Bubba and his neuter-brothers. I speculate that perhaps Bubba and his brothers, having been told that I'm female, have rationalized my presence with their clan by adopting me into their sphere of protection.

Intriguingly, the non-related males do not apply "hadhagnug" to the clan's hunter-males, referring to them as "mnagmanag," the same term they use for the clan's breeder- and neuter-females. Raffarin's definition of "mnagmanag" as "fit for breeding" may require revision.

The pace picked up as we neared the river, both the bnebene afoot and the ondrordore that carried the neuter-mothers and most of the clan's juveniles growing excited at the prospect of fresh water. Hanging back a little to watch, I was struck by a powerful and very specific sense of *strangeness*.

Anthropocentrically speaking, bnebene have the "right" number of arms and legs, but these seem far too large and long for their torsos and heads—the heads really just a fifth limb that houses binocular eyes and frond-like olfactory organs. By far the most disconcerting thing about both bnebene and their "plants of burden" is the way they move. The locomotion and gestures of both species tend to be quick, but have a curious jerkiness, as though one is watching poorly made stop-motion animation. Added to that, the ondrordore look like something Cinderella would ride in, shaped like giant garlic cloves with feathery leaf tufts at their pinnacles.

Reaching the river, the ondrordore rotated with ponderous dignity to put their rearmost pairs of vine-legs in the water, before folding open their front wall segments to disgorge their passengers.

The older juveniles climbed down with a kind of staccato flow, and then they and the breeder-females helped their neuter-mothers to follow. Bubba and his neuter-brothers retrieved the very youngest saplings from inside, still planted in soil tubs and not yet sapient or animate, and carried them to the water.

The whole clan lined up with their toes in the river, leaf collars raised toward the afternoon sun. Within a few minutes, all had become quiet. What had been a bustling caravan of *people* was now suddenly transformed into a stand of unfamiliar *trees* of various sizes, silent and still.

In the distance, around the rim of the bay, I could see a small cluster of buildings. A fish farm's grid of nets and jetties criss-crossed the discolored water at that end of the bay. Rochefort is the town's name, according to my mobile, all of seven years old and claiming a population of a couple of hundred.

The afternoon was getting on, and it was a Sunday, which mattered in these parts. I dusted the pebbles from a patch of dirt and settled down to write while the bnebene finished their drink.

244813.04 (DAY 8 #1)

I walked into Rochefort today for supplies and stopped in at the post office to hire a terminal for half an hour, enjoying the luxury of a full-sized interface—even a cheap, outdated one—compared to the basic pad I hook up to my mobile in the field. I tried to ignore the way the postmaster kept staring at my chest while I worked. At my age, sexual attention *could* have been flattering.

There were a dozen new video, audio, and text messages forwarded from the facul-

ty office at the university, from overseas and even offworld colleagues who wanted to crash my research. I sent back via the office my blanket text-only response, RESEARCH IS PROGRESSING WELL. SUBJECTS ARE ACCEPTING BUT SENSITIVE. FURTHER DISRUPTION WOULD BE COUNTER-PRODUCTIVE AT PRESENT.

I came back to the counter with a handful of articles printed on cheap synthetic vellum for later reading. The postmaster squinted at me—at my face, for once—while he processed my credit. “You travelin’ with them aliens, ain’t you?”

“Bnebene.” I corrected him, managing to keep my tone light. “We’re all aliens here.”

He grunted. “Tinkers, ain’t they?”

I ground my teeth. The term is Raffarin’s, whose theory of the Universal Metaper-son dominates scholarship of bnebene as it does that of other communicative sapi-ents. Still, I told myself at this particular moment, it’s better than “aliens.”

I tried not to touch the postmaster’s skin when I took back my card. He stared at my chest while I thanked him and wished him a good day. Outside, I paused to take a deep breath before crossing the road to the town’s general store. From the post of-fice steps, I could just make out the silvery thread of the space elevator disappearing into the upper reaches of the sky, anchored on the far shore of the inland sea at Persepolis.

I came out of the general store with a thoroughly unappetizing collection of dehy-drated ration packs in a thin sucrose bag that *might* last the walk back to the camp-site. I wondered if perhaps I could convince one of the hunters to go and rustle me up some rabbits, imagining their amusement if I did so. A day is yet to pass that one member or other of my bnebene clan doesn’t remark on my inefficient physiology, with its daily demands for material sustenance.

Still, ration packs are a small price to pay, and I am determined to make more of my once-in-a-generation opportunity than Golovlyov did.

The riverside camp is about an hour from Rochefort, traveling on foot. I walked be-side the vast, pungent enclosures of oysters and sardines that are the town’s sole reason for existing.

The silence of Aralsea on a still day, and of the dry plateau that surrounds it, is in-timidating. Not much has made it out here yet to alleviate the monotonous pale um-ber of dust and stone; only lichens, grasses, and a few insect species—and rabbits.

The sucrose bag gave up the fight about three-quarters of the way back to the camp. I had to fill my pockets and nurse the rest inside my jacket like a pregnant belly.

Approaching the camp, I spied wisps of smoke from campfires. Bnebene only make fires to cook with, which meant someone *had* been out rabbiting. My mouth watered.

I took off my boots, socks, and pants to wade across the thigh-deep water, as I had on the way out. The ondordore still stood with their back ends in the river. When we arrived, their wall segments had a shriveled look. A day later, they’re as plump as in-flated balloons. Most of the juvenile members of the clan were still in the river be-side them, unmoved from the day before. Consistent with Golovlyov’s observations of ship-borne bnebene, young caravan nomads typically remain less active than the adults, even after they uproot from their planter boxes.

Nimble breeder-females and tall hunter-males hunkered around the fires, holding out small, rapidly charring carcasses on skewers. Bubba and Jolly squatted among them, while Big Red stood like a solitary watchtower on a low rise a short distance from the camp. Pixie, the middle in age of the clan’s adult neuter-mothers, squatted on a stool to rest her legs while she dipped her toes in the river.

Old Chook and Chuckles, her sisters, struck identical poses a couple of meters away. All three had tucked up around their hips the hems of the silk ponchos they wear to cover their Venus Fly Trap mouthparts and the several seedpod organs

around their torso-trunks. Other genders, with only mouths and genitals on the front of their trunks, wear aprons instead.

I waded out of the river near Pixie and her sisters and lifted my jacket to let the foil packets spill onto the ground at the water's edge. The three neuter-mothers observed this performance, beady eyes unblinking in their small triangular faces. The slight ruffling of their leaf collars indicated they were amused.

"Are sedentary bnebene cultures as hidebound as sedentary human ones?" I said.

This prompted a brief discussion of the term "hidebound." According to the Babel in my ear, their consensual definition was reasonably accurate. Once satisfied, all three of them adjusted their ponchos, looking like nothing so much as human grandmothers straightening their frocks.

Pixie turned to me. "You had a poor experience of your fellows in the town, gunnug?"

According to the Babel, which uses Raffarin's bnebene lexicon, "gunnug" means "undesirable," as in "not fit to mate with," the semantic opposite of "mnagmanag." The caravan nomads apply the term equally to Merchanter bnebene as to humans and other non-bnebene sapients.

I recounted my conversation with the postmaster.

Old Chook murmured something that the Babel didn't pick up. Pixie said, "This bnebene is familiar with such attitudes among the gunnug of the towns."

"Bnebene gunnug?" I asked.

"Gunnug is gunnug," she said.

Her use of the term compels me to concur with Raffarin that bnebene don't maintain a clear ideological distinction between culture and biology as means of differentiation.

I ate my dinner of charcoal-baked rabbit and re-hydrated vegetables with Bubba and Jolly. To take food, bnebene squat with knees up behind their shoulders, their plates on the ground, and delicately pick at the surprisingly tiny morsels with their long fingers. The food is lifted up underneath their aprons to their mouthparts, which adult bnebene rarely uncover. Most of their meals consist of sitting still while they go through the early parts of digestion. The waste that remains in the mouthparts is discreetly spat out a couple of days later into shallow pits the bnebene dig with their toes.

In deference to the sensibilities of my hosts, I hang a gauze veil over my head and shoulders while I eat with them. The size of my meals is as much of a source of astonishment for the bnebene as is their frequency. Jolly and Bubba tapped each other's torsos while they digested and I was still shoveling food up under my veil.

The evening was warm, so I had left my pants off, underpants sufficing for modesty in this non-human company. It was the most of my skin they had seen, as all my outer clothes consist of full-length pants and long-sleeved shirts. My legs look superficially similar to bnebene limbs, with smooth thighs and calves and wrinkled, knobby knees, although bnebene dermis has a waxy texture and hardness like that of a smooth-barked tree.

Bubba, beside me, reached out two fingers to prod my thigh. He recoiled. "Hree!"

"Hree!" Jolly echoed. Their leaf collars flared. A heartbeat later, I heard an identical, distant, cry from Big Red, out on sentry duty.

My Babel translated the word as a diametric opposite to "Yoom!"

Around the camp, the head of every hunter-male snapped around to look our way. I suddenly felt like the person who'd farted noisily in the busy silence of an academic library. Or, as the flat gazes of the hunter-males remained fixed in our direction, the person who had tried to tiptoe through a lion's cage and kicked over a metal bucket halfway.

A pulse pumped in my neck. "My skin is softer than yours," I said.

Abruptly, Bubba and Jolly settled down, as though my explanation had bridged a conceptual gap that they couldn't cross by themselves.

"It is," said Bubba. "This gunnug differs from this bnebene."

244814.03 (DAY 14 #1)

I remain at a loss to explain my clan's gender disparity. During Golovlyov's sojourn with his Merchanter clan, he established, if only by the verbal evidence of his interview subjects, that bnebene genders are determined chromosomally and that bnebene have three chromosomes to determine gender, resulting in four viable combinations: two male and two female, with a fertile and sterile caste in each pair. Thus:

TU - breeder female

ST - breeder male

SU - female neuter

TT - male neuter

Golovlyov's observations of his host clan and other Merchanter bnebene confirmed roughly equal gender numbers.

The same should be true of my caravan clan. Yet the clan includes four neuter-mothers (three adult, one juvenile), three adult neuter-males, nine breeder-females (including three juveniles), and six related breeder-males (in caravan nomad society, the "hunter-males," two of which are juvenile). There are another four unrelated hunter-males traveling with the clan at present. I discount planted saplings, since they do not begin to express gender until after they uproot.

When I asked Bubba if he has any hunter-brothers who are not currently traveling with the clan, he replied, "There are seven little-brother-subfractions of this bnebene that are elsewhere."

Observations of other caravan nomads indicate that the clan's gender balance is usual for Tinkers, with breeder-male numbers consistently 40 to 50 percent higher than breeder-females. The difference is not readily explicable. It would be remarkable for females to be significantly less viable than males.

244815.05 (DAY 23 #2)

Bubba fell into step beside me as the clan ambled along beside the river after breaking camp. In his hands, he cradled the pot of a young sapling, its not-yet-animated trunk resting against his shoulder.

"Good morning," I said.

Bubba's habitual response to this greeting is to consider a moment before replying, "It is."

This morning, he hummed deep in his torso—a pre-verbalization, from the fact that my Babel offered no translation. After a lengthy pause, he asked, "What fractions has this gunnug?"

I felt a little thrill. Following from his prod at my leg a fortnight ago, this was only the second indication I'd had from him of active intellectual curiosity about me.

I answered deliberately, "I am one and whole."

"One?" he repeated.

I watched him closely. "Yes."

"Hree!" he cried, making me jump, and strode away, his leaf collar flared trembling stiff around his head.

"Hree!" I heard from his neuter-brothers further ahead.

I took a couple of deep, slow breaths, then jumped again as two more tall figures appeared abruptly on either side of me. A pair of the clan's hunter-males—Moose and Black Pete—their long rifles cradled in their arms.

Black Pete said, "Come, gunnug."

Bnebene hunter-males are very different creatures to their neuter-brothers. Bubba's "little brothers" exude a palpable aura of *purpose*, the way a gun has a sense of purpose. These I can well imagine as the clan's warrior defenders.

Moose and Black Pete steered me, sandwiched between them, over to where Pixie rode at the open front of one of the *ondrordore*. My mouth was very dry. Hell, I thought, they're going to kick me out. My bright future career was fading before my eyes.

Pixie said, "Gunnug, you must be circumspect in your dealings with big-brother-fraction. Big-brother-subfractions are the simplest of this bnebene and easily upset. They struggle to grasp that a gunnug person may have only one body."

"They are prone," said Black Pete, "to conflate 'confusion' with 'threat.'"

"This bnebene is concerned that the consequences for this gunnug, having only one body, could be very great," concluded Moose.

I swallowed a couple of times so that I could answer, relief tempered by an entirely new fear. The clan wasn't going to expel me, but, even as alarming as their recent reactions had been, I had not considered that the neuter-males' intellectual confusion could trigger an outburst of actual physical violence. I had no doubt over the amount of damage a bnebene neuter-male could do to an unprotected human. "I understand."

"It is well that you do," said Pixie. "Sister-fractions will be watching."

I am uncertain whether this was intended as a warning or a reassurance, or why Pixie's statement excluded the clan's hunter-males. Perhaps the female genders have greater sway over the neuter-males when they are distressed?

244815.05 (DAY 23 #4)

I avoided Bubba and his neuter-brothers for the rest of the day, but they came to me as I ate my dinner of dried apricots and yesterday's leftover rabbit.

The three of them squatted around me. Bubba put his potted sapling down by his side and repeated his question. "What fractions has this gunnug?"

For the first time, their great size seemed intimidating. I was sitting away from the main part of the camp, my mobile and interface pad propped up on my pack while I ate. None of the female bnebene were near. Black Pete stood in the river about twenty meters away with Silent Bob, one of the unrelated hunter-males. My mind raced.

I said, "I have many fractions and subfractions."

"Where are they?"

Damn. I wetted my lips. "Here."

In near unison, the three of them half stood, squatted again. "But where are the rest?"

Black Pete looked toward us. He started to wade out of the water.

"They are all here," I said.

"Hree!" Bubba rose, leaf collar stiffening and arms spreading wide in an obvious threat display.

"Hree!" Jolly and Big Red crowded in beside me.

Black Pete splashed ashore with stop-motion speed.

"How many subfractions has your fraction of this bnebene?" I asked Bubba, quickly.

His arms lowered. Their leaf collars drooped. Bubba squatted again. Black Pete slowed his charge.

"Three, now," said Bubba. "Four, soon." His fingers reached absently for the sapling.

I held out my bowl of dried apricots, knowing that they enjoy the flavor. Bubba took a wrinkled fruit and tucked it under his apron. Jolly and Big Red copied him, reaching over me. Trying to control the shaking of my hands, I resumed eating.

This interaction—along with my other, less alarming observations—supports the conclusion that the bnebene "person" is synonymous with the matrilineal kin group—encompassing both the eusocial, matrilocal clan and any related hunter-males living autonomously. Each gender set within the clan is, in Raffarinian terminology, a "fraction" of the person, and each member of the set is a "subfraction." The actual bnebene words translate literally as "essential part" and "smallest part," respectively. I have not yet observed any evidence that my clan members conceptualize themselves as anything other than parts of the collective whole.

That said, the fact that at least some of the clan can readily grasp that my personhood is contained within my single body, superficially weighs in favor of Raffarin's position that the "dividual" bnebene person is an ideological construct and therefore consistent with her theory of the Universal Metaperson. However, even these members seem utterly perplexed that the label "Irene Matsui" should apply only to me, and that other Irenees are not then synonymous with me (not all "this Irene").

I have tried to explain to Pixie my conceptual need to apply nicknames to her and her clan members. She seems unable to distinguish which member of a gender set any given nickname refers to, even when I say, for example: "Chuckles is that sister-mother-subfraction that is older than this sister-mother-subfraction." She grasps the kin relationship I'm referring to, but seems unable (or unwilling) to associate this with the label "Chuckles." It is the extremity of this behavior that led Golovlyov to his proposal that since bnebene are biologically eusocial, therefore their "dividualism" is biological—that is, bnebene personhood *fundamentally* resides at a group level and they can *only* conceptualize themselves in terms of their relationships.

Unfortunately, while I am inclined to sympathize with his view that Raffarin's theory is anthropocentric, because of Golovlyov's widely derided supplementary claims, intellectual association with anything more than his basic observations is a greased slope to scholarly oblivion.

244816.02 (DAY 27 #4)

Bubba and his neuter-brothers have been bringing their sapling to awareness. When we camp, they spend most of their days gathered around its planter box, singing low, rumbling songs from which my Babel is unable to discern any words. On days when the caravan moves, they have taken to carrying the sapling by turns, rather than loading it into the ondordore with the rest. At the beginning and end of travel days, they sing to it for at least an hour.

The clan's several saplings are at varying stages of maturity and the progression is fascinating to see. At first, they have an appearance akin to sunflowers, having a

long, straight stem and large, single flower head with two leaves just below it. As they mature, the lower part of the stem bifurcates, the leaves lengthen and shape into arms and the flower head hardens, olfactory fronds unfurl, and it grows into a face. By the time the sapling is ready to uproot, they look like a perfectly rendered, skeletally thin statue of a breeder-female. Visible gender characteristics, including the massive size of the male genders, develop after uprooting.

While Bubba, Jolly and Big Red have been singing to it, the sapling has slowly grown more animated, beginning with small flexing of its fingers and mouth parts, followed by full movement of the arms and head and, finally, articulation of the stem at the knee and hip joints. The climactic moment came this afternoon, when the sapling finally added its voice to those of its brothers.

"Yoom!" they all cried.

"Yoom!" the rest of the clan echoed.

A meal was had this evening, and the neuter-males took theirs squatted beside their new brother. It will be several weeks yet, I understand, before the freshly sapient bnebene is ready to uproot.

244817.02 (DAY 34 #4)

I am acutely aware that this opportunity is mine because Utopia is still a young, fringe colony at the back-end of the Line, and Nieu Bactria is the back-end of Utopia. I am the *only* qualified cultural sapientologist at NBU. Being Johnny-on-the-spot, I'd locked in the gig before more distant and better-credentialed colleagues could even hear of the opportunity. But even with this ethnography under my belt, I need to *add* something to the body of knowledge if I am to use it as a springboard up to that esteemed rank of scholars that includes Raffarin and the rest—that *should* have included Golovlyov. Now I have it.

Tonight I witnessed an event from which even Golovlyov was excluded: a mating ceremony.

Toward sunset, all of the adult bnebene gathered in the river. The neuter-males stood behind the neuter-mothers in an obvious protective position. The crowd of breeder-females and males, related and unrelated, faced them in a rough crescent. They sang, a low murmur without—to my human ears—any discernable melody, although I could feel a rhythmic pulse of their sub-sonic vocalizations. "Yoom" was repeated, and several semantically related words.

At the moment the sun's orb touched the horizon, three couples separated from the crowd and approached the neuter-mothers. Each couple comprised a clan member and an unrelated hunter-male. The three mating trios then waded out of the river and made their way to the ondrordore, each party shutting themselves inside a different vehicle-creature. The neuter-males followed, to stand guard outside.

Most remarkable is that one of the pairs who had approached the neuter-mothers was male-male—Black Pete and Silent Bob, who I observed in the river together a few days ago.

A final, curious, point of interest is that the remainder of the adults stayed in the river after the mating trios had shut themselves away. They remained quiet for some time, then gave three collective intonations of "Yoom," close together but not equally spaced. Shortly after, the breeder members of the mating trios emerged from the ondrordore.

That a neuter-mother is included in a non-breeding union prompts the speculation that homosexual relations among bnebene are required to follow the pattern of

breeding relations in order to be socially sanctioned. The presence of some interstitial or malleable gender characteristics is also a possibility, but less likely. Previous ethnographic evidence indicates a remarkably strict alignment between ideological and biological gender categories among bnebene, and occurrences of intersexuality have not been recorded.

Since I have been permitted to observe this ceremony, I'm hopeful that Pixie and the other participants will consent to speak with me about it as well.

244817.03 (DAY 35 #1)

At dawn, Black Pete and several of the other hunter-males took their juvenile brothers out rabbiting. The neuter-mothers were carried down to the river and planted on their stools. When I tried to approach, Bubba and his neuter-brothers flared their leaf collars in a threat display. I retreated promptly. I was, however, able to observe that Pixie and Old Chook did not appear fully conscious in any case.

Interestingly, Chuckles—who had gone with Black Pete and Silent Bob—exhibited the same behavior. This suggests that intercourse, rather than impregnation, is what triggers catatonia in the mothers. A more intriguing possibility is that Chuckles's behavior is an *act*, part of the ritual of sanctioning the homosexual mating.

244817.03 (DAY 35 #2)

More excitement today: toward midday, as the camp drowsed, suddenly *every* member of the clan (except the neuter-mothers, who remained catatonic) leapt to their feet in the same instant and gave a collective cry of, "Hree!" Several minutes of intense agitation followed. The unrelated hunter-males, after their initial surprise, appeared unaffected.

I waited for a while after they'd settled down (and my own heart rate had returned somewhere near normal!) then approached Moose to ask what the outburst had been about.

"One subfraction of the hunter-brother-fraction of this bnebene has broken his leg."

"Did your hunter-brothers call the news to you?" I asked. I hadn't heard anything, but bnebene hearing is known to be more sensitive than human and has a wider auditory range.

Moose rapped on his shin. "If one subfraction feels a hurt, all subfractions of all fractions must feel it. Is it not the same for humans? If one part of this gunnug is hurt, are not all parts aware?"

"All parts of me are in the same body," I said.

"It is the same," he said.

His answer, I note, did not preclude the possibility of a distress call.

I was therefore surprised when the rabbiting party returned to the camp whole and unhurt. I returned to Moose.

"Which hunter-brother-subfraction injured his leg?"

Moose raised both arms to point. "The subfraction that hunts to the north, by the sea."

"At the shore we have recently left?" I asked, thinking that an infrasound cry from a bnebene on the south shore of Aralsea could conceivably reach us here.

"No. By the *sea*," he said. With a woody finger he sketched a quick map in the dirt, showing our river, Aralsea, and a blank swathe between it and the squiggly line he drew for the oceanic coast. He made a dot beside the river (us) and another up next to the north coast. "By the sea," he repeated, "That which surrounds this continent."

I do not, from this, concede to Golovlyov's postulated "psychic dividualism"—his unsubstantiated and oft-ridiculed contention that a bnebene clan is more than merely eusocial, but at the most fundamental level a single being. Given the sophistication of the geneered tech the Tinkers use, it is entirely probable that they have integral communication devices to maintain contact with separated members.

244817.07 (DAY 39 #3)

After the warning from Pixie, Moose, and Black Pete, and Bubba's subsequent alarming approach, I have taken some pains to avoid him and his neuter-brothers. Curiosity trumps caution, however. I took my plate and ventured over to join them.

"Yoom," I said, aware that I am only capable of a small part of the vocalization. They appeared to understand my attempt or, at least, welcomed me into their group.

"Four, now," said Bubba.

"This fraction has four subfractions," I said.

"Four subfractions of this fraction of this bnebene," he agreed, amiably. "This fraction that is brother-uncle-son."

Moose and Black Pete were watching, as were several other hunter-brothers. The line of conversation seemed safe enough for the moment, though.

"This bnebene has many subfractions," I ventured, ready to backpedal quickly if they showed signs of agitation.

"Many," said Bubba.

"Most are here and some are elsewhere," I said.

"Most here," Bubba agreed. "Those parts that are brother-father-son are elsewhere."

The statement confused me. I glanced at Moose and the other related hunter-*males*. "Some of those subfractions that are brother-father-son are elsewhere, and some are here?"

Bubba's leaf collar rose a little—as did those of his brothers, including the sapling—then settled. "No. Only brother-father-son of other bnebene," he said. "Only *hadhagnug*."

"But what about . . . ?" I began, raising my arm to indicate Moose and Black Pete and the rest.

I stared at Moose and had one of those vertiginous moments where sudden insight yawns like a chasm beneath one's toes, where one had previously perceived only an unbroken field ahead. It took me a moment to find my voice.

"How many sisters have you?" I blurted, then corrected the question: "How many sister-fractions has this bnebene?"

"Three," said Bubba. He and his brothers shifted their feet. The sapling shivered. Reacting to *my* reaction—not understanding it, necessarily, but sensitive to the change in my body's rhythm and scent.

I asked one more question to check. "And how many brother-fractions?"

"Two."

I beat a hasty retreat before they could begin to ask awkward questions of *me*.

I took my plate over to Pixie who, along with her sisters, had fitfully emerged from her catatonia over the past couple of days. My legs were shaky as I squatted beside her.

"There are eight adult hunter-subfractions traveling with the clan," I said. "Four belong to this bnebene, four of them do not."

She looked at me for a few seconds, no doubt sensing the same disturbance in my body as the neuter-males had begun reacting to. "Yes," she said.

"The four that are subfractions of this bnebene are female," I said.

"Yes."

Not evidence of homosexuality or intersexuality. Black Pete and Moose and the rest are female. A *third* female gender. The trio of Black Pete, Silent Bob, and Chuckles *was* a breeding trio. I said, "This bnebene has three fractions that are female and two that are male."

"Yes."

I had to sit, tipping the short distance from my squat onto my backside. Pixie and her sisters watched me with evident curiosity. I took a couple of deep breaths and said, "The bnebene of the Merchant ships are different to this bnebene. Merchanter bnebene each have two female and two male fractions."

"They are gunnug," Pixie said. Feeling a little lightheaded, I asked her how many fractions the bnebene of the homeworlds have. She informed me that they are all gunnug, but added that some have as few as two fractions and others as many as seven.

My head is whirling with ways this might be achieved. The sex chromosomes postulated by Golovlyov for Merchanter bnebene could conceivably produce a third female gender if, for example, the hunter-females have an extra chromosome that masculinizes them. A supplementary gender-determination method, such as temperature variance, or some form of haplodiploidy are other possibilities. But none of these would explain the homeworld bnebene with two or seven genders.

Different sex chromosomes would:

Merchanter Genders

- TU - breeder female
- ST - breeder male
- SU - female neuter
- TT - male neuter

Tinker Genders

- PQ - feminine breeder female
- PR - masculine (hunter) breeder female
- RQ - breeder (hunter) male
- QQ - female neuter
- RR - male neuter

I asked Pixie, "Why five genders? Why does this bnebene have five fractions?"
"Because five is bnebene."

"And why do the Merchants have four?"

At this, Pixie and her sisters indicated amusement. "Because they believe four is bnebene," Pixie said. "But five is bnebene. All else is gunnug."

The bnebene species that we know (*plural* species), and at least some of those on the homeworlds too, are artificially self-created to express competing ideologies of racial ideals.

This is my springboard. I am made.

244818.02 (DAY 41 #2)

I was bathing this afternoon in the river, downstream of our campsite, the backs of the ondrordore between me and the camp.

Bubba and his neuter-brothers waded out into the water and surrounded me. Jolly carried the sapling in its pot. Its flared leaf collar mimicked theirs.

"How many fractions has this human?" Bubba demanded.

I stood, covering my breasts and genitals in case they took offence at seeing them exposed. "Humans perceive ourselves differently to bnebene," I said.

"How many fractions has this gunnug?" he said. "How many subfractions?"

I wished for Moose's psychic powers to kick in right about now. I thought quickly. "Come ashore with me," I said. "I will draw you a picture that might help you understand."

They allowed me to pass and followed as I waded up to the bank. I considered making a break for it, but that would certainly inflame the situation. Besides which, on the riverbank we were in sight of the rest of the clan at the camp.

I quickly put on my shirt and pants, not bothering to dry myself. I beckoned for the neuter-brothers to squat with me. To my relief, they did, Jolly placing the sapling on the ground at his side.

With my finger, I sketched a web of lines in the dirt, creating four intersections. I indicated the drawing, and then the four of them, "This is this fraction of this bnebene." I indicated a line. "These are the relationships that bind the subfractions together."

They sat silently for a long moment, then Bubba extended a finger and touched the intersection nearest to him. "This is this subfraction."

"Yes."

Jolly and Big Red copied him. The sapling reached less certainly toward the intersection nearest to it. They retracted their fingers. Silence, again.

Encouraged, I drew more criss-crossed lines, another four sets, then lines to connect all five. "These are the other fractions of this bnebene," I said. I drew a ring around the whole lot. "Everything outside this is not this bnebene."

They stared at the picture. "This is this bnebene," said Bubba.

Heart thumping, I rubbed the patch of dirt clear. I made another series of dots, then drew lines between them, but not quite touching the dots. I touched the dot closest to me. "This is this human."

A muscle in my calf twitched, my legs tensed to spring away and run. Bubba extended a finger. "The lines do not touch."

"No," I agreed. I touched the other dots. "These are other humans. Each is one and whole."

The moment seemed to last forever. Their leaf collars stiffened, relaxed. Then Bubba said, "This gunnug is different to this bnebene."

I almost gagged with relief. They *could* understand. Even these simplest of bnebene could grasp a concept of the individual. Could Raffarin be right, I thought, after all? Could Golovlyov's accusations of anthropocentrism be unfounded?

"This is how most humans see ourselves," I said. "Humans and bnebene perceive ourselves differently." I took the plunge: "Underneath, perhaps we are more similar."

I let that hang for a few seconds. When they didn't react, I rubbed out my sketch and began a third time. Once again, I made a series of dots. This time, I made a circle around each one and connected all the circles together with lines. Raffarin's diagram of the Universal Metaperson: each individual distinct from but bound within a web of dividual social relations.

"Underneath the different ways we see ourselves," I said, "perhaps we are both—humans and bnebene—both like this."

They stared. Bubba uncurled a finger, hesitated, then touched a dot on the Metaperson diagram. "This is this subfraction."

"Or this human," I said.

"The lines do not touch," he said.

I felt a sinking dread in the pit of my belly. I had taken them too far. "No," I said. "But they hold us, nonetheless."

"This . . ." His leaf collar shivered, as did those of his brothers. "This subfraction is . . . is . . . this bnebene."

"This subfraction is this bnebene," Jolly and Big Red repeated. The sapling mewled. Their distress was palpable.

"This subfraction is one," said Bubba.

"One and four," I stammered. "And many."

"One!" he bellowed, rising.

"Hree!" they all cried, at different moments.

I leapt backward, stumbling away from them as Bubba and Big Red reached for weapons.

"Hree!" they cried again, even more unsynchronized, and all did something different. Jolly fled at a staccato sprint toward the river. Big Red turned an energy blade on himself, stabbing himself in the trunk, while beside him the sapling waved its arms, frantically seeking contact with one of its brothers, and tipped over its pot. Bubba came after me, swinging a sonic mace.

"Hadhagnug!" he boomed. "Hree!"

The mace's vibrations made me want to vomit. The edge of its effect radius scraped my shoulders, not quite close enough to draw blood.

Ahead, hunters charged from the camp. I saw Moose, standing still, her hunting rifle leveled, aiming past me. I jagged to the side. Hot pain seared my back as Bubba caught me with the full effect of his mace. My guts reacted violently, my bowel and bladder evacuating as vomit spurted up my throat. I fell.

Moose's rifle whined.

"Hree!" Bubba cried, staggering.

Black Pete struck him feet-first, knocking him down with a crash like a felled tree. She aimed her handgun and fired a lightning-burst of blue light, point-blank into his trunk, then sprang after the rest of the hunters, off to subdue Jolly and Big Red. Bubba sprawled, fingers and toes twitching, making faint, broken noises.

"Hree!" the cries echoed from the camp.

I tried to stand, fell again as the world tipped up to meet me, crawled over to Bubba. "Oh, no. Oh, no. I'm so sorry."

Hard fingers caught my arm, lifted me away.

Moose dropped me in the dirt a distance from Bubba, regarded me from her great height, rifle cradled across her elbow. "This gunnug has hurt this bnebene."

"Will they be all right?"

"Perhaps," she said. "But this gunnug must leave."

Once all the neuter-males were stunned and quiet, Moose walked me downstream to wash in the river. Black Pete brought my pack of clothes and belongings and they helped me to apply a synthskin dressing from my medical kit to my back. Then they left me.

I stood on the riverbank, the breeze raising goosebumps on my bare skin, and watched the caravan move away. It was a couple of hours past noon, but they plainly had no desire to stay in this distressing place, or near me. The long legs of the neuter-males hung from the open doors of the ondordore. None of the clan members looked back.

I dried myself and dressed, then built a fire, feeling colder than the day.

I have what I came for. I will overturn a generation of received wisdom about bnebene gender and evolution. What we had thought of as a single species is, in fact, several. And they have made themselves several, the ultimate expression of fundamentalism and eugenics.

My reputation will be made. Offers and opportunities will flow. It will be "Goodbye NBU, goodbye backwater." The list of renowned sapientologists will begin "Raffarin, Matsui . . ."

But what have I let slip away? Where might the clues I've been presented have led me? I showed Bubba and his brothers how to see themselves as individuals and it broke them. Simple as they are, they hadn't the resilience or sophistication to meet the challenge to their fundamental concept of self. Was it evidence of Golovlyov's psychic dividualism? Of the first true hive-mind humanity has encountered in a communicative sapient, or just absolute indoctrination? Might I have loosened some bricks at the base of Raffarin's intellectual edifice, her Universal Metaperson, as Golovlyov so spectacularly failed to do? Was the opportunity there to pull the whole thing down?

Might I still? Perhaps somewhere else, with another Merchanter or Tinker play. There are experiments that could prove or disprove Golovlyov's theory.

But even if bnebene dividualism is true, could it too be a construct, an artificial veneer over the natural bnebene person? Is that why it shattered so easily for Bubba and his brothers? Do the questions of gender and dividualism converge?

My mobile is blinking beside me as I tap out my thoughts on the interface pad, its memory full of unanswered messages. Those, and the long walk back to Rochefort, can wait until tomorrow. ○

Transfiguration

my old friends had changed their names
made various deals to get ahead
but fallen behind
exotic machinery rusting in their front yards

it's not uncommon
for a traveler in this position
to reconfigure the facts according to his earthly despair
I waited at several intersections
for one of my childhood medusas to save me

it was the right decision
to disconnect without fanfare
though I did leave a flurry of messages
cryptic remarks about wanting to meet in a secret place
suggestions about what to bring
how to survive an abduction
by ritualizing nonsense

when I got home
I sat outside writing jokes
worked on my stand-up routine
the air was silent the frogs were gone
that bright orb hovered over the house again
the night everything changed

—John Amen

William Jablonsky is the author of *The Indestructible Man: Stories* (Livingston Press, 2005) and the steampunk novel *The Clockwork Man* (Medallion, 2010). His work has appeared in many literary journals, including the *Beloit Fiction Journal*, *Shimmer*, *Phoebe*, and *The Florida Review*. The author teaches at Loras College in Dubuque, Iowa. His first story for *Asimov's* takes a look at the power of communication over . . .

STATIC

William Jablonsky

8:33 P.M.

Soledad is nervous about putting Oscar to bed, fearful as she is that the world is about to end. She is holding him a little too tight, and he's squirming, which only makes her fight harder to contain him. She's just been on the phone with her mother; the woman's been at her for weeks to hurry up and get Oscar baptized before the world is swallowed up, so his soul will be saved before the end. Considering Soledad's hormone issues, I've looked into changing our number, but that would only help for a day or two. For a second I swear I see her lips move in silent prayer. As far as I knew she was over that silliness, but I suppose this is a special occasion.

Because I cannot stand to see my wife reduced to blithering, I try turning on the TV to distract her. The screen fades in on an affable black man in a black V-neck and camel suede blazer, explaining that the world is not actually going to end tonight—this is something NASA has been planning for years, and the space station astronauts know exactly what they're doing. Other than being a theoretical physicist's wet dream, there will be no impact on us beyond some power surges and pixilated TV screens. We mere mortals will not even be able to see it.

"There," I say. "Feel better?"

I watch her grip on the baby relax, hear her breathing slow. "Yeah," she says. "I think so."

After some coaxing and multiple good-night kisses, she carries him upstairs and lays him gently in his crib. He is almost nine months old now and sleeps through the night, so we can finally relax.

I meet her at the bottom of the stairs with a cup of mint tea. "There now," I say, trying not to sound condescending. "This should help." These days, I even use the wrong intonation and the shit will hit the fan.

She pulls off the purple hair-tie and shakes her long straight black hair loose. She is still tense. The pills her OB doctor prescribed help, but she's always finding something new to worry about: he's crawling like a soldier, dragging his legs limp behind him; he's not babbling yet; he calls us both "dada," robbing her of her special status as life-giver. This week she's worried he's autistic; I've told her it's way too soon to tell. that it's irrational to panic about this yet, but she doesn't listen.

The astronomer on TV reiterates the instructions we've heard for weeks: unplug all unnecessary electronic devices, even the TV and phone, because the EM surge might short them out. Cell phone signals will be garbled at best and might get crossed. (This does not help Soledad's mood.) NASA is sending a probe into the phenomenon, so if there's anything to see, they'll show us when it's over.

We turn off nearly everything but the baby monitor, but when I reach down to unplug the phone, Soledad stops me. "Wait," she says. "What if Nanna falls and breaks a hip?"

"That woman's made of iron," I reassure her. "She'll be fine." At eighty-seven she walks four miles a day and can drink me under the table. But Soledad just stares at me, hands clenched, so I plug the phone back in and try to figure out where I'll buy a replacement when this one shorts out.

With nothing else to do, we sit and wait.

9:38 P.M.

It's begun.

If the astronomer was right, it started twenty minutes ago, and the planet has not been swallowed up. Truth be known, nobody really knows what's going to happen—maybe the probe will go back in time, or run into little green men, or pop out orbiting a parallel earth. Or maybe it's just a really cool thing only astronomers will care about.

Soledad and I are on opposite ends of the red leather couch, sweating because she made me turn off the central air, our legs sticking to the upholstery because of the humidity. We haven't spoken in some time, but this is okay—scintillating conversation was never our strong suit. I pretend to thumb through the L.L.Bean catalog while she sits still as a stone, hands on her knees.

I finally break the silence. "Looks like the world didn't end."

She shoots me a weak smile from one side of her face. "It's not over yet," she says flatly.

I reach over and slide my hand up her thigh. "Well," I say, trying to sound playful. "if we still might die I can think of better ways to spend our last moments."

Lately, this is right about when she brushes my hand off and asks if I'm kidding, but not this time. I lean over to kiss her, first a little peck, then full on. She pulls back for a second and looks at me with dull, tired eyes, then shrugs and pulls my head toward her and kisses me back, hard.

This is good.

A minute later I'm on top of her; our elbows and skin make flatulent sounds on the leather, and she actually laughs with me. I lift up her T-shirt and fumble with her bra. This will be the first time since just after Oscar was born, when she asked me to prove I still found her beautiful. When she found out, that was enough to last her eight months.

I've just gotten it unhooked when the baby monitor beeps to life. Its usual hissing static is rough, like a Geiger counter after a meltdown. We hear coughing, deep in the gut and heavy like a sick dog's bark. A few crackling moans follow—Oscar's voice is deep and heavy and pops with phlegm.

She pushes me off and darts up the stairs.

More coughing. She is halfway up when another voice comes over the monitor: "Jesus," it says. "We'd better get him to the hospital right now." The voice is mine.

She freezes at the top of the stairs.

"Go start the car," Soledad's disembodied voice says over the speaker, and before I can process it she's burst into Oscar's room.

By the time I catch up with her she's standing over the crib, the rotating butterfly lights passing over her in the dark. Oscar is lying on his belly in his white polka-dot summer jammies, backside up in the air. He opens his eyes halfway with a little high-pitched giggle, then closes them again. His breathing is clear and strong.

We back out, close the door, and tiptoe down the stairs. We do not look at one another, or speak, for some time.

Though we've been warned against it, Soledad turns on the TV; every channel is an undulating wave of disconnected pixels. Then she stops on the ABC affiliate; the picture is still distorted, the sound fading in and out, but we can make out the silhouette of Peter Jennings on the screen, reporting that a second plane has just crashed into the World Trade Center.

"Is this a documentary?" she says, but there's no ominous music, no grim voiceover, no commercial break.

I turn off the TV and put my hand on her knee, but she pulls away and it's clear our moment has passed.

"Go ask Dale and Erma if they've seen anything," she commands.

When I stick my head out, Dale is splayed out across his porch swing smoking a blunt, the smoke forming a halo around his silver crewcut. "Anything strange going on over here?" I ask, keeping my voice low. "From the, uh, thing?" I point at the sky.

He shakes his head. "Nope," he says. Until he retired he taught science at the high school where I'm a guidance counselor, so he knows more about these things than me. "Why? You meet yourself from the future or something?" He chuckles. There's no mirth in it. When we first moved in he met us on the front porch with bear hugs; when I told him Soledad was pregnant, he and his son Brian built us a little tire swing in the backyard. But he's been a ghost since Brian was killed by an IED in Kandahar, a little over six months ago.

"Not exactly. Just something . . . strange."

"Must be nice," he says, finishes the blunt off in one long drag, staring aimlessly into the night.

I go inside.

"Well?" Soledad asks.

I plop down beside her, bouncing on the cushion. "Nothing."

10:32 P.M.

The house phone rings. No one but her parents calls us on the landline. Soledad starts to get up; when I grab her arm to stop her, I can feel the tension all the way up her arm.

"It could be Mom or Dad," she says, shaking. "Something might be wrong."

"Nothing's wrong," I tell her. "You need to take it easy."

She tries to pull away, but I won't let her. "Do you not understand me at all? I can't until I know everything's okay."

"Let it go to the answering machine this one time," I plead, but there's no stopping her. She yanks her arm free and picks up the phone, just before it goes to the machine.

"Hello?" she says. I can't hear much on the other end, just a woman with a nasal, high-pitched voice, calm and officious over the crackling on the line.

Soledad is silent for a minute as the woman speaks. Then she interrupts. "I think you have the wrong number, ma'am," she says. "First of all, it's after ten and Oscar is asleep in his bed. And nine months old." Another long pause. "I feel just fine. I'm looking at the clock right now. Yes, I think you'd better try another number." She hangs up, but instead of coming back to the couch she stands by the phone on the side table, staring at the wall, her arms beginning to quiver.

"What was that all about?" I ask.

She doesn't answer at first. Then she turns, slowly. "That was the nurse at Valley Elementary. She told me Oscar fell off the top of a slide and hit his head. They've called an ambulance."

I get up, put my arms around her. "It's a prank," I insist. "Probably your idiot brother messing with you."

"Well that's just cruel," she says, her voice quivering, mustering all her will to keep from crying. "Why would he do that?" When we were first married she was a warrior woman who did Pilates and ran seven miles a day, and detests how emotional she's become.

"Because he's an asshole." If it is her brother, I swear I'll cripple him.

Two minutes later, her cell phone rings. She doesn't answer until it goes to voicemail. The message is the same. She tries calling the number, six or seven times, but only gets the voicemail.

"Just relax," I tell her. "Oscar's fine. This is just a prank."

When I finally get her to sit down she is trembling, fingernails leaving little marks in the upholstery.

Finally I speak up. "Maybe you should have a glass of wine," I suggest. "To take the edge off."

"No," she says.

"Suit yourself." I reach over and pick up her cell phone, start to turn it off.

She snatches it away. "What the hell are you doing?"

"Just keep it off, baby," I say, trying to sound as understanding as possible. She isn't listening. She checks her inbox and voicemail to make sure I haven't deleted anything. I sit on the armrest next to her, take her trembling hand.

"You're looming," she says without looking up.

"Tell me what's happening here," I plead. "I don't understand."

She doesn't take her eyes off the phone. "No, you don't. There *has* to be another call now, so I know he'll be okay."

She is clearly somewhere else right now, eyes glistening, rocking slightly on the cushion. She sounds like she's humming a lullaby under her breath. I absolutely cannot handle this shit.

"Kay," I mutter. "Suit yourself." I gather my ciggies and shuffle to the door.

Dale is still out on his porch, toking up again. He smokes constantly these days, right out in the open—the cops just let it slide because they all loved him in high school and they know about Brian.

"More weirdness?" he mutters. He nods his head toward the wooden lawn chair beside him; I sit, help myself to a good long toke even though I know Soledad's head will explode when she smells it on me.

"Yeah," I mutter. "Some not-so-good news. Soledad's freaking out. Anything new on your end?"

He shakes his head. "Not a damn thing."

"Be glad," I tell him. "It's driving her up a wall—and she was already halfway there."

Dale leans over and looks at me like my dad about to chide me for scraping up the car. I feel his heavy hand compress my shoulder. "Jimbo," he sighs, "good or bad, it's a gift. Take it for what it is."

I pat his knee. It breaks my heart to see him like this, a deflated balloon attached to a sagging skeleton. "I'm sorry, Dale."

I sit out with him for a few minutes longer, then will myself to my feet. "Best get back to Soledad. She's probably scaling the walls by now."

My world is fuzzy around the edges as I negotiate the walkway and the decorative stones at the edge of our yard—Dale grows strong stuff in his basement—but things seem condensed now, more manageable.

When I come inside Soledad's on the phone again, her eyes wet. My timing is shit.

But she isn't sad or devastated—she seems to be smiling. I start to ask what's wrong, but she waves me off. "Yes, sweetie," she says. A pause: a voice comes over the line through the static, a child of about seven or eight. She goes on: "And you're sure you didn't forget where you parked it? No, honey, I'm fine. . . . I'll be there soon. I love you. Bye."

She hangs up, still smiling.

I move closer. "Was that . . . him?"

She nods. "He's okay. Somebody stole his bike from the rack at school. He's pretty upset." She shows me the time-stamp on the call; it reads eight years from now.

I look at my own phone—no messages.

Finally she goes to hug me, then sniffs at my head. "Have you been smoking weed again?"

"No," I say, blowing my skunky breath into her face.

"God, you're such a child," she says, and marches into the kitchen. Either way we're good—no fingernail tracks on the walls, for now.

11:35 P.M.

Over the next hour Soledad gets a series of calls: Oscar requires Yoohoo and some Oreos in order to live, and can she please pick them up on her way home; he will be home a half-hour later than his curfew because someone named Randy needs a ride; Teddy's mom will be giving him a ride home from soccer practice (Teddy is the eighteen-month-old four doors down). She puts the phone on speaker so I can hear. The voice is strangely similar each time, a bit garbled but clear, the time stamps ranging from eight to twelve years from now. Soledad smiles each time; the crisis is over, and he is clearly fine.

All I get is a voicemail from my mother asking me if I'm really, *really* sure I want to marry a Mexican. This was settled nine months ago when we gave her her first grandchild, so it does not bear a response.

Each time Soledad answers the phone her face is glowing and peaceful, as if she's entered some holy place and been blessed. Maybe Dale was right. This is a gift—for her, at least.

12:47 A.M.

Soledad has decided we should be taking notes based on these calls so that, when the various crises hit, we will be prepared for them. I try to make sense of them based on the time stamps, but I'm still a little high and it's confusing to keep it all in order. I'm arranging notecards on the coffee table when the house line rings again. She picks up, puts it on speaker so I can hear.

"Hey, Mom." His voice is deeper this time, a little crackly. "Coach says the first game will be on the twenty-first, if you want to come."

"Of course we're coming, sweetie," she says.

"I can hardly hear you," he says. "Is something wrong with your phone?"

"Just sunspots," she says. This is the excuse we've concocted.

"Okay. Well, can you promise me something?"

"Yes?"

"Can you and Dad not fight the whole time like you did last year?"

She seems a little surprised, since we rarely raise our voices. "Um, sure, sweetie."

"Okay. Because I'd rather you didn't come at all if you're gonna do that."

"I promise," she says. "We both do."

She hangs up after he does, looks up, glares at me. "Something you want to tell me?"

I shrug. "Not really." I go back to my notecards and don't think any further about it.

1:15 A.M.

We should both be sleeping, but there's no point in trying. The lights are still on in all the houses on our street, so no one else is either. Soledad has been quiet since the last call, glancing at me once in a while to see if I have anything to say to her. I don't.

Her cell phone rings.

"Hi Mom." Future-Oscar's voice is shaky and high, like something's happened. "Is something wrong with the line? I'm not getting a picture and the sound is terrible."

I remind her of the lie. "Sunspots," she says.

"Do you have a cold or something? Your voice sounds different." He is older now, his voice almost a man's.

She smiles, practically hugs the phone. "No, honey, everything's fine."

I hear him take a deep breath. "Okay. I didn't want to do this over the phone, but I thought you'd want to know. I already told Izzy, so please don't be mad at her."

I mouth, *Who's Izzy?* at Soledad, but she just shrugs. Her grandmother's name is Isabella, but anyone who called her "Izzy" would get an earful. "What is it, honey?"

"I'm getting an apartment off-campus with Eric this summer. We've got jobs lined up, so I won't be coming home."

"I'm sorry to hear that," she says, and waits for more.

He laughs nervously, the way Soledad sometimes does. "Uhh, there's more. I don't really know how to say this, but, ummmm . . . Eric's not just my roommate."

My limbs go numb and it's hard to take a full breath. No one says anything for a while.

Soledad breaks the silence. "Are you saying you're . . ."

"Gay," he interrupts. "Yeah."

Another silence.

This time he's the one who breaks it. "Oh, Jesus, Mom. Say something."

She sinks into her chair like she's been kicked in the gut. "I don't know what to say, sweetie," she finally replies.

"You still love me, right?" The tone is joking, but his voice sounds as if he's about to cry. I'm guessing this is the moment when my heart is supposed to swell with love for my son no matter who he is, but I'm still just numb.

"Of course I do, baby." She's slumped across the cushions and holding in her breath. I hear sniffing on his end. "Don't you or Izzy tell Dad, okay?"

"Do you want to tell him now?" She starts to hand the phone to me, but I don't take it.

"Dad's there?" he says. "I thought he and Chloe were still in Costa Rica." I gesture madly for her to go along with it, but she looks at me with murder in her eyes.

"Uh, they are . . ." she says. "You're right. Why don't you call him when they get back?"

"Oh, shit," he says. "It's that wormhole you told me about, isn't it? Did I just out myself as a baby? I'm sorry—I shouldn't say any more." Then the line goes dead.

She grips the phone so tight I hear the battery cover crack, then flings it at the wall. The batteries fly out, but it's otherwise unharmed. She turns to me, eyes wide and sharp as stilettos, the skin on her face taut and pale. "Who the hell is Chloe?"

"No idea." This is a lie. Chloe is the new girls' gym teacher—cute and blond and a little busty, far too bubbly and cloying for my tastes. She might be interesting if life kicked her around a little.

Soledad continues to glare.

We go back and forth for a good twenty minutes: I spew the usual sci-fi platitudes about how she can't blame me for something I haven't done yet; because we know it now, it doesn't have to happen. But there's no point.

"I'm sorry, honey." I try to put my arms around her, but she pulls away.

"Don't touch me," she says, and disappears into the kitchen.

I go to check on Oscar—maybe my epiphany will happen when I see him as a baby. He's still asleep, still facedown, clutching his stuffed Clifford the Big Red Dog. It starts off well enough; my first impulse is to pick him up, hold him, rock him for a while. Then, maybe because I'm overtired, I start to wonder if this means there's time to fix it—toy trucks, weightlifting, sports.

I go outside for another ciggie on the front porch. Dale isn't there anymore. I peer through the gap in his living room curtains; he and Erma are crouched on the floor in each other's arms, the phone dangling from her hand. Tears are running from Erma's eyes. Then they turn a little and I see she's smiling. I turn away, finish my smoke in our driveway—this isn't for me to see.

2:53 A.M.

We don't even try to go to bed, even though the event is due to end any minute. Soledad and I are on opposite ends of the couch; we don't talk, don't even look at each other. I keep trying to say something that will fix this, but language has deserted me.

Finally she turns to me, no tears, no anger. "Are you unhappy with me?" she asks flatly.

"No, honey." I try to scoot closer, but she waves me back.

"I just don't know what would possess you."

"Neither do I."

Then it comes: a photo from Oscar's number on our cell phones, dated twenty-four years from now. It's heavily pixilated and blacked out in a few spots, but we see enough: a mocha-skinned baby girl not quite a year old, in pink jammies and a little purple bow around her forehead. There's a big crooked smile on her face, and she's clutching a worn, faded Clifford the Big Red Dog. She has Oscar's eyes and ears—they must have used a surrogate.

She's beautiful.

Soledad and I stare at the image on separate phones, from each end of the couch, running our fingers along the LED screen.

Then the pixels degrade and the LEDs go black.

"Wow," Soledad says. "Just . . . wow." I put my arm around her from behind and squeeze. She lets me.

4:30 A.M.

Soledad has gotten two more texts: one from her sister saying the surgery went fine and her father's awake (this was two years ago); the other from Oscar, asking if we can have pizza tonight. She says yes.

The event has passed, and the astronomer, bleary-eyed, is back on TV. Nobody died, the world didn't end, and NASA has enough data to keep them busy for a decade. He encourages everyone to take stories of strange occurrences with a grain of salt—it may take years to sort out exactly what's happened. After he says this he wipes a tear from his eye, at which point Soledad gets up off the couch and shouts. "Ha!" Then, embarrassed, she turns to me. "I think I need to go to bed."

6:35 A.M.

My eyes snap open as Oscar cries across the hall. Still in our clothes, we stumble in. He's sitting up in his crib, face scrunched in hunger. Soledad lifts him out and hugs him tight, her back turned to me. "It's okay," she says soothingly. "It's gonna be okay." I come up behind her and try to touch him, but he pulls his hand away and buries his face in her chest. I try to comfort myself by thinking he's probably wiping his nose on her, but it doesn't work. With nothing else to do, I start repeating after her, over and over, until I forget who I'm saying it to. ○

I like to sit and watch myself go by,
I choose the safety of the passing crowd
and though sometimes I try to catch my eye,
a nod, a smile, but nothing said out loud,

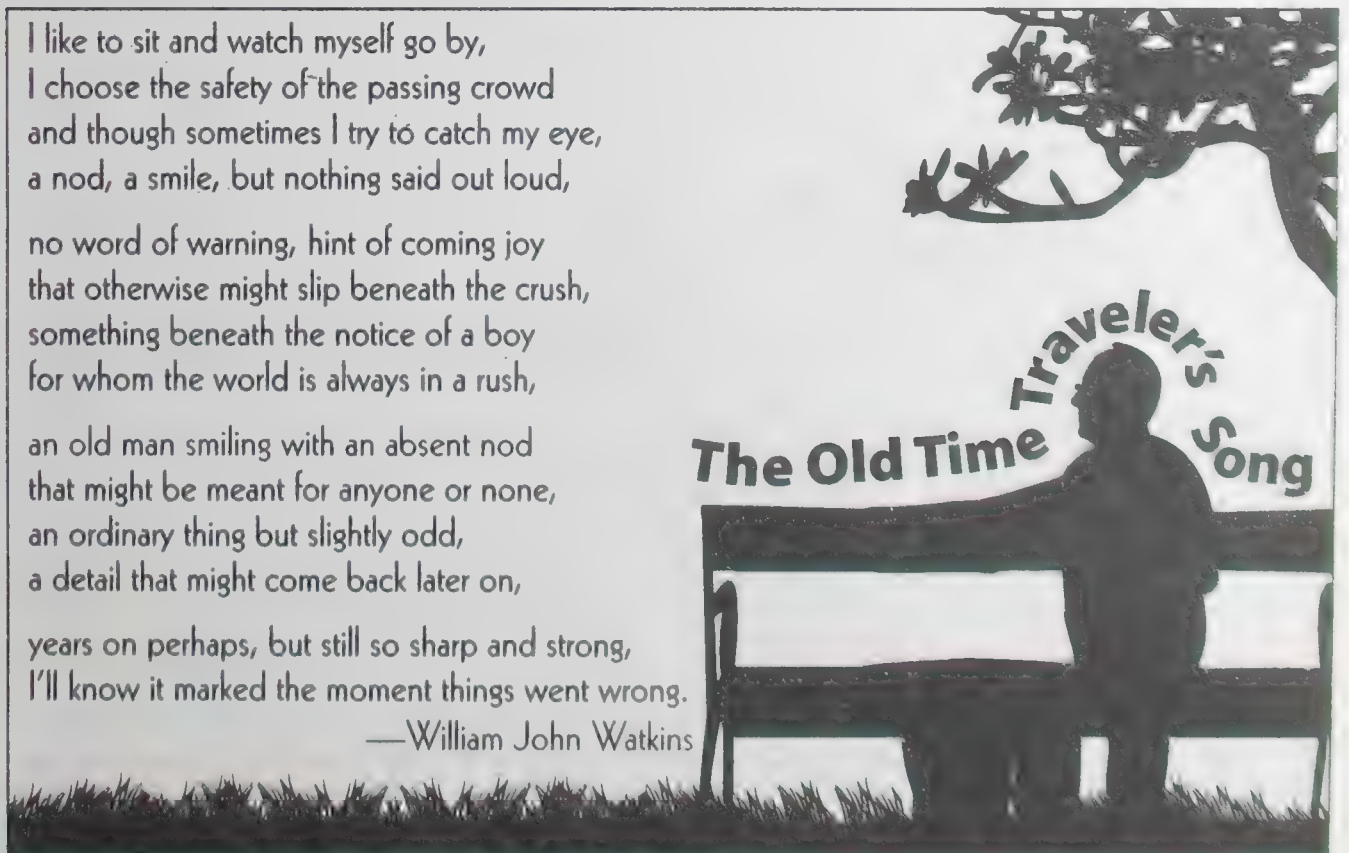
no word of warning, hint of coming joy
that otherwise might slip beneath the crush,
something beneath the notice of a boy
for whom the world is always in a rush,

an old man smiling with an absent nod
that might be meant for anyone or none,
an ordinary thing but slightly odd,
a detail that might come back later on,

years on perhaps, but still so sharp and strong,
I'll know it marked the moment things went wrong.

—William John Watkins

**The Old Time
Traveler's Song**



PRIMES

Ron Collins

Ron Collins comes about his love of numbers honestly. He's an "all application, no theory" engineer who's a son of an engineer, and he's married to an "all theory, no application" math major. He learned basic math as a kid armed only with a slide rule and the driving need to truly understand baseball. Give him a spreadsheet and a chart, and he'll be happy for hours. Ron tells us that the first paragraph of "Primes" came to him in that dream state that occurs "only in the process of waking up during the earliest of the early morning hours."

A prime number is one that cannot be represented as a product of two other numbers—excepting, of course, itself and the number 1. It is independent, unique. It is not a product of its environment.

If Jersey Jones were a prime number he would be seventeen. This is because he was seventeen when he lost his virginity to Pari Alderson, a friend at secondary school. Their tryst occurred in the back of his father's car while parked behind a convenience store. They met years before when Pari was seven—which is, of course, another prime. When they were finished, Pari was unhappy with him. He took her straight home, neither one speaking throughout the drive. They did not see each other after that fateful evening.

Today, Jersey Jones writes computer programs at InterTel, a company that exists to push advertisements through the neural interfaces of the average public citizen at that just-in-time moment before they might need the product at hand. Though he found parts of his job annoying, the work itself was interesting: link into people's nets, query their inventory, map their current location, brain activity, inferred physical motion into his clients' sites to create glide paths to the right store so smoothly they thought they got there all by themselves.

It was, of course, important the customer always felt they were in control. The customer is always right, and each needs to feel unique in its own way, like a prime. This was not true, of course. At the level InterTel spoke of them, customers were all the same. Like so many of us, they were fake primes. But when the illusion was complete, people got what they wanted and wanted what they got.

Jones liked working on people. He liked to imagine he was actually touching their interface and giving them these not-so-subtle commands. When he first hired on and was just learning the basics of interface construction, back when his co-workers still invited him to such things, he would sit in bars after work and conjure up things he might do with people—could he make the couple in the booth across the aisle get into a fight? Or could he have the brunette three seats away put down her

drink and give him a smile? Looking back, this was the beginning of everything. At the time, though, he did it mostly to stay busy while his friends were hooking up or getting shot down in blazes of glory. The bar itself made him uncomfortable. Talking to women never seemed to go well for him because he never knew what they were going to say next.

He thought about his job sometimes when he read his own feed. Who was feeding him? Did they know what he was doing? How would he go about tailoring code to analyze his own activities? Making coffee was a step to the refrigerator matched with scooping motions at the counter, followed by running water. The algorithm could learn that quickly enough. Tea would be the same, but without the scooping. That was too simple, of course. The scooping could be cereal, or sugar, or just about anything. But it was where he would start.

He wondered what they knew about him.

Some people didn't like that Jersey's job existed at all. They argued InterTel could not be trusted, that allowing companies access to people's interfaces destroyed personal liberty. They were wrong, of course. A company like InterTel could exist only if people trusted them, and if one Push company went renegade the whole industry would crash. So the collective became self-policing, burying the process of development under layers of procedure so thick that creating anything truly new seemed nearly impossible.

This is what annoyed Jersey about his job. It wasn't that InterTel went too far: it was the fact that the company *didn't go far enough*—that they actually complied with interface laws. The industry merely provided people what they needed when they needed it. No harm, no foul.

There was so much more he could do if they would just let him do it.

Andrelline Smith would be thirty-two years old in less than a month.

If she were a prime number, she would be 313. Her parents had split when she was two, embarking on a custody battle that lasted several years and left her in the middle of two warring factions consisting of separate sets of parent and grandparents on each side. She married her college sweetheart when she was twenty-three. She asked her parents to come together for her special day, but they declined. This is why she had married the same man three times within the span of a single week, holding three separate ceremonies—one for each of her parents, and the real one just for her and Harol. It had been the easiest thing to do. At least she got her money's worth out of the dress.

Now, Andrelline lived in an apartment with her husband and two kids. She loved them each and wouldn't trade a minute, but at one point she'd had bigger dreams. Sometimes, when she was sitting in her favorite chair, or when she was out at the grocery store, or sitting on the bus as it shuttled her to the shops at Larimer Square, sometimes during those moments of quiet thought, she fantasized about what her life might have been if she had run for office or agreed to join the staff at Freedom Rights—a coalition for the disenfranchised that had offered her an unpaid internship before Jade had been born. Sometimes it would get so far that her feed would send her news clips and links to blogs. Then she would get up and make herself lunch, or would pick out the bottle of milk with the latest "use by" date.

Life is like this. It moves on, with you or without you.

Canada Doering was born on January 1st. One-one. She actually considered herself to be a prime, though she wouldn't know a prime from any other number. She called herself 4-9-9 at parties, and at a bar she once wrote a poem with 499 as the title, which she read out loud for Open Mike night. It was more of a limerick, really.

but it got people's attention and that's what mattered. She had that number, 499, tattooed on her left hip in ink as red as her hair. She called herself 499 because four hundred ninety-nine was nearly five hundred, and five hundred was how long she was going to live. She knew this because Madame Fortuna had told her so when she was a little girl, and it made sense because scientists said they were very near to extending life into something that would make humans nearly immortal.

She planned to have "500" tattooed on her other hip when she turned her dying age.

She hadn't done the math, though, and was surprised to find herself falling to her death on the first day of August, which as luck would have it, meant she had entered the five-hundredth month of her life.

George Manning worked the emergency line in Denver, Colorado. It was no surprise to George that 9-1-1 was a prime number. The emergency code deserved to be special. Its prime-ness made sense. George assumed the fact that 911 was a prime was among the reasons it was selected as the emergency number in the first place.

George had voted Republican in every election he could find, with the rare exception of when a Libertarian might have a hair's breadth chance of actually winning. He considered himself a practical man, a man of logic. His friends said he was reliable to a fault. If George Manning said he would do something, he did it.

Though George was a very big man in every way, he thought of himself as Batman, sitting in his soft chair with his ear bud in place, his microphone strapped to his head, and the special government band appended to his neural feed. He fucking-A *was* 9-1-1. That was what he told his cop friends as they watched the Broncos and drank beer during the season. He was just as responsible for lives as they were. He handled mothers who had lost their children, and wives who were going crazy because Frank had just keeled over with a heart attack, and sometimes he even handled the chilling calls from cold, cold voices who told him things that would freeze the heart of a normal person.

His friends didn't agree with him, of course. Assholes. They were *real* cops, and he wasn't even a rent-a-dude, even if he did buy them beer in his turn and even if he did shoot with them on the weekends. They would not let him into their sanctum. They called him Gut Man, a play on his love of the comics. Gut Man, they said, able to eat hoagies at the speed of light. He took their ribbing in good nature on the outside, but (while he actually enjoyed the nickname Gut Man) being laughed at ripped holes in places they couldn't see. He wanted to be a cop. He wanted to be a superhero. He wanted to be something more than an invisible voice on the phone.

George answered this time in the same confident voice he answered with every time.

"9-1-1. What's your emergency?"

"I think my girlfriend just killed herself," the voice replied.

"I see," George said, switching to questioning mode. It was his job to keep the man calm and get his information as quickly as possible. "Can you tell me where you are?"

He typed as the man responded, clicking the police button and feeding them information. The call lasted just over three minutes. When it was done, he typed in the man's name—Jersey Jones—which is eleven letters. He did not think of this as a prime, though of course it was.

Tevin Stone was a senior inspector with the Denver Police Department. If he were a prime number he would be thirteen because he was someone for whom nothing seemed to work out. He was always so close—good, but not good enough. Behavioral scientists claim that constantly being so near a person's goals, yet never reaching

them, can shave years off a person's life. If this is true, Tevin Stone was a strong candidate to die soon. He was 47 years old the night he arrived—bubble on and siren off—to investigate a jumper at 877 East 17th Street.

Three CPD were already on the scene.

The woman lay under a sheet on the sidewalk of an apartment building.

Stone knelt to lift the covering and saw she was naked except for the number 499 tattooed on her hip. Per protocol, the officers had not touched her. She was no longer a pretty sight.

"What's her story?" Stone asked a paramedic standing nearby.

"Seventh floor," the paramedic replied.

He looked up. The streetlights limited visibility beyond the third floor.

"Drugs?"

The paramedic glanced at 499 and shrugged. "Not enough."

The detective dropped the cloth, went inside. While the elevator rose, Detective Stone thought about his daughter. His feed brought him a notice about college tuition and another about mace units, which he did his very best to ignore—imagining the feed getting stuck in the upper folds of his temporal lobe. Focus and compartmentalization were skills he had perfected long ago.

Charlane, his little girl, was nineteen years old and a sophomore-to-be at Colorado State. He wanted her to study law, but she'd chosen criminal justice, just like he had. He sighed, thinking about the corpse's red hair. Charlane had dyed hers that very color a month ago. He didn't think much of it, but she liked it and that was what mattered. A few years ago, Tevin thought he might rise further in the department, but that was before the failed tests, the booze, and the steady stream of cases that wore his knees down and stole his capacity to dream. All he really wanted out of life anymore was that his little girl be happy.

The elevator stopped, the tone rang, and two doors slid open.

Jersey Jones sat at the kitchen table, surrounded by cops and other people who were not uniformed but who Jersey still figured for cops. He knew he didn't like the detective the minute he stepped through the front doorway. The man was black, with a receding hairline. He could stand to lose a few pounds.

Jones was still trying to decide exactly what had happened, and he didn't like the detective because he seemed sure of himself. Jersey Jones didn't need someone who actually knew what they were doing asking him a bunch of questions right now. The female uniform had tried to grill him earlier, but it wasn't really her thing, and she quickly returned to rolling yellow tape. Jones sipped coffee that had grown cold, and thought about the wireless push unit he had stashed in his closet. Even if they found it, the cops wouldn't know what it was. And the handheld device was packaged in an old phone. He should be safe if he played it well.

The detective had quiet words with two uniformed officers, then came toward the kitchenette table. They introduced themselves, and Stone slouched onto a three-legged stool.

"Can you tell me what happened here?"

Jones licked his lips. "I don't really know. One minute we were on the couch having fun, then she got up and jumped." He motioned at the broken window, through which the skyline glowed with lines of stark light.

"No fight between you?"

"Not a thing."

"You know we'll be able to get a playback, right? If your story doesn't match the basics it won't look good for you."

"Nothing," Jones replied. "I swear."

Stone didn't believe him, but something about Jersey Jones told him they wouldn't find anything on his feed. Still, there was something more here. It was a tone of voice, the way Jones's words came out almost scripted and his eyes slid away from contact just enough to avoid pressure.

"All right," he said, sitting higher on the stool. "Let's get to business, then."

The interrogation took fifty-three minutes. By the time he left, Stone had learned that Jones had met the deceased in a bar, and that she had come up to the apartment for rough stuff. He knew the tox report would show S-Blast. He knew snippets of conversation, the fact that the two had not known each other before, and that they had taken a taxi here. And he knew that Jersey Jones was still not telling him everything. Beyond that, Detective Stone knew his stomach was burning with acid, his back ached, and that he was in for another long and sleepless night.

Andrelline woke that morning and got Jade and Maria ready for their summer program. They were eight and six. Jade was worried Maria was going to slow them down, and Maria was worried that the blue bow she had pasted into her hair was going to fall off. Andrelline got them into their shoes while Harol made his breakfast, scanned the newsfeeds, and drank his coffee. It was a big day for him. The candidates for chief engineer were being announced and, if his boss got it, Harol was next in line to move up. He wouldn't seem nervous to anyone else, but Andrelline saw it in the way he cleared his throat before sipping coffee and the way his eyes kept going unfocused as he read the feed.

It would mean more money and another week's vacation.

She thought about the beach and an advertisement for sunscreen rolled on her feed. She scolded herself for her daydream. The ad and the sensation of warmth it contained made her feel selfish and needy. Harol had enough to worry about.

Jade complained, then, and Maria rolled her eyes.

Andrelline walked them down the stairs and waited at the corner until the bus came. She noticed the area across the street, penned-off with yellow tape that marked it as a crime scene. Curiosity made her scan the wall, stopping at a seventh-floor window, half of which was boarded with plywood. A chill crossed her spine, a mix of fear and worry that made her shiver. An ad for a dopamine inhibitor scrolled on her feed.

The bus arrived in a cloud of dust. She hugged the girls and watched them step onto the vehicle. She returned to the apartment in time to give Harol a goodbye kiss and watch as he grabbed his jacket and went to the office. She wished he would work at home more often, but that was not going to happen. Andrelline went about her chores then, doing the things that needed to be done to keep the house running. But all morning she found herself coming back to that moment on the street corner, and wondering what was behind the broken window.

Jersey Jones did not sleep that night, but the S-Blast was still running so he was not particularly tired. The police informed him he was a person of interest—which was different from a suspect, but which still prevented him from leaving the city.

It pissed him off.

This wasn't his fault. He didn't want her to jump, he hadn't told her to.

It was probably some fundamental problem with her rather than anything in his code, or at worst just some strange interaction, like a penicillin allergy or lactose intolerance. The woman was a thrill-seeker, a bimchette with that air of desperation older women could get. Jersey did not pretend to understand women. But she had been an easy sway. His handheld transmitter had linked into the net around her, and she had responded to each of his messages—she asked for a Dark Horse when he of-

ferred to buy her a drink, she said she didn't smoke, but after he sent the command she bummed a cigarette from the blonde woman who sat beside her.

They played a scene from Jersey's favorite movie, and after another drink he suggested they get more comfortable at his place, which was just down the street.

She gave a bright smile and let her hand trail across the inside of his thigh as she slid off her stool and grabbed her purse. The night had promised to be so much more than remarkable before she quite literally jumped the shark.

Definitely not what he had wanted to happen.

He stood in his apartment as the morning wore on, drinking coffee and watching as children gathered at the corner across the street.

He caught the woman's glance as she peered into the remaining pane of his window. She was attractive, with dark skin and full eyes. Her cheekbones caught the morning sun. For a moment he thought she saw him, but he was too deep in shadow to be seen. He imagined her on the couch with him and he felt himself stir down inside. He touched himself, and he smiled at his feed, which rolled steadily past, filled with the events of the day, stock market suggestions, and an ad for a coffee shop that was on his way to work. The blocker he had developed and loaded into his own interface was stable—he was running dark. Nothing cluttered his thoughts. No ads for condoms, or singles, or the various toys that he had gotten used to seeing at moments like these.

It gave him an almost staggering sense of freedom.

He could do whatever he wanted and it wouldn't register. He drank coffee and felt its heat warm his belly.

Glorious.

The bus came and went, then the woman left and the street corner was empty.

George filed his daily log, listing each of his calls, his assessments, and his justifications for the actions he had taken. It was 9:04 A.M. as he clocked out. He played head games with those numbers. Nine was three-squared and four was two-squared. Both roots were primes. Those games made him happy, but not as happy as the extra dough three hours of overtime would bring.

He stopped for dinner on the way home.

Among the prices of being a midnight hero was that, at this time of day, it was hard to find places that weren't serving egg muffins and sausage biscuits. But George knew a few. He stopped at Luigi's, a twenty-four-hour restaurant that served their full menu all day. He drank iced tea and ate a plate of spaghetti. The carbs weren't good for him, and he was considerably past the point where it showed, but screw it. He deserved something special for putting in the extra hours. The meatballs were good, but not spiced right. Needed more oregano.

The number 877 kept coming to his mind. 877 East 17th Street—the address of the man who called about his girlfriend. He tried to remember the full conversation, but the only things that stuck were the address, the tone of the man's voice, and the name Jersey Jones.

He couldn't shake that call.

After he disconnected, his feed had been filled with an image of a bulletproof vest. It made him feel big inside. He imagined himself in that vest, gripping his gun and stepping into a dark alley with a crook down the other way. He stared out the window, watching cars and buses drive by while voices echoed in the restaurant behind him. The cops couldn't respond to any warning he might give. That was the frustration of being a cop—you knew who the bad guys were but you couldn't do shit about it until they fucked up. But, as the assholes were constantly reminding him, George Manning was not a cop. He did not have to play by cop rules. This was his chance.

By the time his mind returned to his spaghetti, it was cold. He got up, left a good tip in cash, and went back to his car.

877 East 17th Street.

He had to drive by.

"Anything on the feed?" Detective Stone said as he walked into the tech lab.

Kelsey Tang, a second year analyst, rolled back from her monitor and shook her head. "I'm not done, but it looks normal."

Stone peered at the screen. "Show me," he said.

She went to the start of Jersey Jones's data-feed.

In the old days you needed a warrant to pull a feed, but a string of credit card shootings and a gang war in Chicago had created one of those moments when the public craved security, so now he acquired it with nothing more than a phone call—which meant Tang had spent her morning digging into the logged readouts of both Jersey Jones and the jumper, looking at their body chemistries and optical feeds to confirm events of the night.

Jones's feed filled the monitor. It was dark, but Stone could see the woman dance as they disrobed. She ran her hands through her hair. Things progressed. Physical readings on Jones's feed wobbled. The two drew together, both playing hard and aggressive. Suddenly she stood, glanced toward the kitchen, then ran and threw herself against the window. The glass shattered as she fell. Then she was gone.

"Jesus," Stone said as he rubbed his hand over his face.

"Here's the woman's feed."

She switched views, and the new header read—Name: Doering, Canada, Race: Caucasian, Gender: Female, Age: 41.

Jones let her into the apartment. Doering's body chemistry did flip-flops as she entered. Her feed was loaded with the essence of wine and an undercurrent of Belgian chocolate. By the time she got to the couch, those quaint allusions to romance were gone, however, replaced with things dark and carnal. They kissed and her numbers spiked. Jones touched her shoulder and grabbed her hair, pulling her face up to receive a hard kiss. Her feed was filled with handcuffs and rope and devices curved and ridged. Her mind ran with knives and needles and other objects of macabre intention. Her frontal cortex flared. Then she was racing through the apartment and jumping into the glass. The window shattered into a thousand sparkling pieces.

The analyst froze the frame with Doering in mid-air, pushing her glasses up the bridge of her nose. "Look at her brain activity."

It was lit up like it was on fire.

"I see it. Any ideas?"

"I don't know," the girl said with a shrug. "Maybe she's just got a kink on?"

Stone nodded. "Helluva kink. Let's look at her past feeds and favorite joints. Same for him. See if we can find a pattern."

He left her to her work, rubbing his hand over his head and dreading the reports he had to file.

George knew he was breaking every rule in his employment handbook but sometimes a hero has to go with his gut, and with a gut as ample as his, he figured he ought to listen to it. He was the Gut Man, after all.

He got out of his Ford and went to the apartment building. It was brick, twelve stories high, with the look of having been built in the fifties though he knew it was only a few years old. He scanned mailboxes, but they didn't have names—just numbers and key-slots. The call had come from the seventh floor. He ran his thumb over num-

bers on that row, feeling anxiety behind every one of them. The cold edge of the man's voice seemed to whisper to him.

He was tired, but George wanted to set eyes on Jersey Jones.

He returned to his car and hunched down, keeping the building door in his sight. His feed sent him a string of links to bad detective films and an ad for an energy drink.

Jersey Jones decided on lunch at Pancho's Deli. He rode down the same elevator Detective Stone had. It was a blessedly silent trip. Perhaps, when he was done eating, he would take a walk downtown, maybe take in the art museum. He had lived in Denver for eight years, and never done that—never felt the need, he guessed. He wasn't particularly keen on art, but being free of his feed gave him a fresh sense of discovery and he found himself wanting to get outside.

He left the building and turned down Emerson, passing by a man asleep in his car.

Detective Stone had been up all night—so, after a late lunch (or early dinner), he went to his house in the suburbs, put his gun down, and removed his coat and shirt and his creased pants, replacing them with sweats, a Broncos T shirt, and a single cold beer. One beer—any more and the nightmares came, and one doesn't give himself to the force for twenty-five years without having a pile of nightmares stored away. Those nightmares and the more-than-one-beer he used to allow himself had chased Dinah away.

He saw the note from his daughter. She would be out for the evening. Even when she was home, she wasn't home, he thought. She was due to go back to Fort Collins in two weeks. Time moves too damned fast.

He sat back on his recliner, and for the first time today, let his feed loose, hoping it would find him a show.

It suggested a nighttime sleep aid and an interview with Cam Knight, the team's new outside linebacker. He linked to it while he turned the TV on. It would look better on the big screen and he was still old-school enough to be uncomfortable with the noise of another voice in his head. Images of Knight hitting a running back filled the screen. He wore number 53, which, as the story would have it, is a prime number—not that Detective Stone would have recognized it as such. He was not a man of numbers in that way.

Stone couldn't concentrate on the show.

Something was bad with this case, something that went beyond the idea of a middle-aged woman meeting a younger man for a night of fun gone horribly wrong. He kept thinking about Canada Doering's data feed, kept seeing it spike and twist, remembering the image of her leaping into the glass, her shoulder tucked in to protect her face. He thought of the way her mind spiked as she flew through the air, hanging suspended in that split-second of zero-gravity before beginning her descent. He remembered ads for an orthopedic surgeon that came to her node just before the whole thing went dark.

She was talking to him through these memories, telling him a story he couldn't understand, but the harder he tried to focus the less he saw.

His feed sent him a jingle about coffee and its ability to focus mental activities, and if that didn't go far enough, try Ziple, a new cerebral enhancer on the market since May. The stream of information was too much for him. He tried to push it away but after a full day of fighting, he was too tired. So he drank his beer and he let the feed play until it became just so much noise in the background that he could fall asleep.

Which he did, snoring gently on his recliner as images of football players crashed into each other on the screen.

The bus came at 4:15, right on schedule. Andrelline sat on the bench and waited for Jade and Maria to step off.

Jersey Jones was walking toward the intersection, returning from the Art Center, when he saw the bus arrive. He watched children disembark.

He had enjoyed every minute of the center. He didn't like the artwork as much as he enjoyed the stories behind them, the people and their histories and their thoughts as they created their pieces. Much of the work was not of interest without this background—which made sense to Jones. It was while he was staring at the modern work of Gar Haver, earlier this afternoon (a piece titled *457 Pieces of Eve*), that he decided he would adjust the push routine to tone down its self-mutilation element. That might have been the problem. He also wanted to strengthen his ability to provide muscular control.

He was walking down East 17th Street, thinking about fixing his code and about that touch to the thigh, when he saw the bus unload its children and he caught the glorious brown eyes of Andrelline Smith. He smiled as he passed her, and he reached into his pocket to run his thumb along the handheld transmission unit, adjusting content parameters he thought might work with her.

Andrelline was reaching for Jade's hand when she saw a man stride past. He was tall and white, almost WASPy, with thin black hair, attractive in a lanky sort of way. His cheeks were gaunt and angular. His eyes were piercing blue. He walked with a stride that felt dangerous somehow, the stride of a secret agent or a government spy, but nervous like maybe he was new to the job.

The man held her stare, then glanced at the boarded window across the street.

She felt a power then—pure, something almost sexual. She smelled jungle. He kept striding past her, and she saw him as a panther with fur black and sleek, and fangs as white as pain. She could tame him, though, she felt it. The idea froze her. An ad for soap stopped in mid-flow, replaced with something in leather.

Jersey Jones smiled, but kept walking. It was the woman from this morning. The longing in her eyes told him her story. She was locked into a life by her happenstance, a victim of her own timidity. She had probably never made a decision for herself in her whole life. Women were all like that—they pushed and shoved, but at their hearts they were all built for the government feed. They wanted a man to tell them what to do.

He glanced at her over his shoulder as he crossed the street and saw he had called it right.

This woman would be different from Canada Doering, though. This woman was normal, a family girl, a housewife. She might despise herself forever, but she wasn't broken. She wouldn't go crazy and throw herself out the window.

He slid the handheld unit back into his pocket and entered his apartment building, thinking about the changes he would make to his push device, and wondering if he could find this woman from across the street. He stepped into the elevator, already seeing code structures he needed to modify.

George woke with a start. The car's compartment was stale and warm, as if its oxygen had gone flat. He saw the glance exchanged between the woman and the man, the man's eyes turning toward the plywood window. His brain came to instant alert. He saw the woman's expression, and the way she smoothed her hands down her pant legs after the man crossed the street, before she took her daughters' hands in

hers. The man slipped a device into his pocket, and smiled with such wickedness that George nearly pissed his goddamned pants.

It had to be Jersey Jones. It had to be.

The woman led her kids into her apartment building, hesitating for one last glance at the boarded window. George ground his teeth together and felt the sudden urge to hold his gun.

The code blocks were all there, optical, aural, auditory. He couldn't do full touch now because it was too complex, but he had bits of taste coded and he could send some sensation. Muscular control seemed workable. He needed to know more about her, though. The more he knew, the better the mapping would be. Maybe that was the problem last night. He thought he had learned enough about Canada Doering to make it all fine. It wasn't like she hid much. But maybe he needed more. Or maybe the bitch lied. They did that.

Jones didn't know the woman's name, but he had touched her interface as he walked past, and he had her face, a rough idea of her age, her building, and the fact that she had at least two kids. It should be enough.

Fifteen minutes later, he had her.

Andrelline Smith. Thirty-one. Married. Degree in Social Justice and Women's Studies. Two kids. Housewife. He smiled at the irony of her education. This was marvelous. He read her feed directly off the line. It was full of recipes and sales. Here and there he found the taste of wine or the tone of regret inherent in her search for the latest book by a writer named Kate Aarons. Romance, of course. So cliché. She was apparently planning a trip to Mexico, where her mother was born.

He latched into the structure of Andrelline Smith's feed.

His first change was small, just the flash of an image—a woman with one hand tied to a chair. Ten minutes later the same woman, her back arched, a man's hand at screen right. The model was a Latina, like Andrelline, smooth skinned, but not perfect. He watched her feed as the evening progressed, saw the way it spiked with each subliminal note he layered in.

His eyes narrowed. His mind focused.

He felt like a conductor standing before a secret symphony.

The kids were in bed, finally.

Andrelline sat on the couch, her feet curled beneath her. She was reading a book. Harol had been moody all night. His boss had not gotten the job, so he was stuck in his place for one more cycle. Harol was a good man, but hard to reach at times. She had learned to give him his space.

As she read, she felt urgency come over her. She felt warm. Then she felt more than warm. She imagined Harol when he was not so distant, she felt him, tasted him. Her mind wandered, and somewhere in the mix she found herself thinking of the boarded window and thinking of the man across the street. She imagined secrets. She stretched, arching her back, feeling a sense of longing, a sense of need that was suddenly so strong it hurt.

Her forehead shimmered with a film of sweat. She bit her lower lip, enjoying the sharp edge of her teeth.

Jersey Jones watched from his apartment as he fed her images of the dark merlot she had stored in the cabinet. A moment later she passed by the window and poured two glasses.

Yes.

* * *

It was dark when Detective Stone woke. His digital clock read 9:45. The television flickered with a baseball game, so it was not yet morning. His feed smelled of coffee and buttered toast. Shit. Everything about his life was out of sorts.

It came to him like a bolt of lightning—a gift from the inner workings of his mind. *It wasn't Doering's feed that was the problem.* He picked up his phone and pressed his tech analyst's number.

"Did you find anything about the feeds?" he asked.

"Nothing you haven't seen."

"What about Jones's feed?"

"Nope. Nothing out of whack."

"What about the ad feeds?"

"What do you mean?"

"The products themselves, the rates of the packet reception, anything?"

She hesitated. "Nothing unusual."

"No spikes. No odd perturbations. Nothing with a kink on."

"No. I don't think so."

"That's it," he said. "Jersey Jones is a geek-head, a code monkey. Awkward as shit. Maybe even a little creepy. Yet he's got a revved-up cougar in his room for the evening, *and* his body chemistry is all spun up, but his ad-line is flowing along just as steady as rain."

"I see what you're saying," the analyst said, her voice rising. "You would think his feed would be . . . uh . . . more interesting."

"Exactly. Something's not right. Can you read him now?"

"I'm at home. I'll have to go back in to access his stream."

"Okay, I'll call you later. Thanks." He broke the call.

George called in sick to work.

The cops wouldn't move on this guy without enough evidence to lock him down, but he had seen the look on the woman's face. Something was going to happen tonight, and he was going to be there. George Manning was the Gut Man.

He ate three Chicago-style hotdogs at a restaurant down the street, then parked his car in a real lot, bitching about the thirteen-dollar-an-hour rate, and feeling his stomach complain about greased-up french fries that had come with the dogs.

Thirteen fucking bucks. Jesus.

This had better be worth it.

He slipped his Beretta into his pant waist and walked to the corner where the apartment buildings joined. The weapon was a Px4, semi-automatic 9mm, with a full magazine of ten rounds loaded. He liked it for its ambi-safety—something that, being left-handed, was important to him. A man needs to be professional and safe.

He sat on a raised block of marble outside a bank. Cars and buses passed. The sound of a bar band came in the distance. It was just past ten.

Harol hadn't wanted another glass of wine, but after he went to bed Andrelline finished her second and went back for a third. She tried to read another chapter, but her mind wandered, and her feed drifted in directions she wasn't used to. The apartment was silent now, the rest of them sleeping.

She felt desire inside her that carried a hint of what she thought of as freedom. It was a ball of wanton energy woven tight to the core. She drank wine, and pictured herself walking down the street with the same, feral essence she sensed from the man earlier today. Her skin tingled. The stream brought images of two people writhing in such a close frame she could not tell their genders, an ambiguity that made the moment somehow more real. For a moment Andrelline forgot she was mar-

ried or that she had children or that her parents had divorced, forgot even that her life was in a rut.

George watched the woman leave her apartment building. She stopped at the corner, breathed a languid breath, then walked across the street with such an unhurried gait he thought she might get hit by an onrushing taxi. She wore a trench coat, buttoned once. Her feet and legs were bare. Her walk alone was enough to draw attention. It was fluid, hypnotic. She made it across the street and inside the opposite apartment building before George broke from his fugue and stood to follow her.

He got to the door just as the elevator rose.

It was going to the seventh floor—he was sure of it. He remembered the edge to Jersey Jones's voice. Something bad was going to happen if he didn't get up there. He lumbered through the hallway and took to the stairs. As he ran, his feed filled his mind with a driving beat of heavy metal, the perfect hero soundtrack.

Detective Stone got out of his car and waited for backup. He leaned against a fender and crossed his arms. The warrant had been granted. He was going to interrogate Jersey Jones further, and possibly even arrest him. It was getting late. The air was crisp and cool. He liked this time of year. It felt like a fresh start.

A man stepped into the apartment foyer, hand against his side in the fashion that told Stone he was packing. He was a big man, nearly as round as he was tall, dressed in dark clothes and what could be a military vest.

Shit.

He released the strap on his own weapon, and moved to investigate.

Andrelline did not ring when she came to Jersey Jones's door. Instead, she knocked, just as he had instructed her to knock. He liked the sound of flesh on the door. Three blows from the knuckles, a physical call, a manifesto in pain that beckoned him to her service. He opened the door and found her standing naked, her coat pooled on the floor behind her.

His eyes narrowed in appreciation. This woman was not broken. This woman could handle her pain. He would control her in a way no one else could, and she would like it.

"Come in," he said. "I've been waiting for you."

The sound of the locking bolt sent electricity up her spine. Somewhere inside her, Andrelline understood what was happening. She felt trapped, she wanted to wrest control from this new part of her, this drunken alter ego who seemed so calm, so collected. She wanted to change her life. She wanted to live. But this was not her, or was it? She felt the flavor of a desire so much larger than her body could contain. She did not want to touch this man's face, yet touch it she did, and when she ran her fingertips down his face the smoothness of his cheekbone brought comfort, she felt safe. She did not want to sit in the chair while he roped her wrist down, and yet when she did, and when *he* did, she felt a surge of something so brilliant she forgot the fear she knew she should feel.

What was she doing?

She tried to scream, but her body did not respond. Instead she felt her back arch and her legs and feet curl around the chair legs.

Stone crossed the street, working to remain calm, his eyes wide, his ears straining. Auto exhaust flavored the air, the horns of cars carried from the distance. By protocol he should stay put until his partner arrived, but a man with a gun changed

everything, and a man with a gun who also happened to be on a crime scene made it a priority.

He made a decision.

Stone stepped into the apartment building but found no sign of the man. He went to the elevator. It arrived at the seventh floor without incident. The hallway was empty. Was the man already in Jersey Jones's apartment? Stone rested his hand on his weapon and rang the bell at Jones's door.

"Who is it?" the man's voice came several beats later. He was clearly wary.

"Detective Stone," he replied. "I have a few more questions for you."

"Just a moment. Let me get decent."

The detective waited.

George's chest was on fire and his legs felt like Jello. His breathing echoed in the vertical shaft of the stairwell, sounding like an asthmatic locomotive. He had made it up only five flights and he thought he was going to die. He thought his goddamned head was going to explode. He gripped his gun and looked down the shaft, using his free hand to grab the rail and drag himself along. He imagined his buddies laughing at him. Sweat blurred his vision, and his hands were wet, making the gun feel slippery. This was it. He had to work out. He had to move now, though. Every moment he waited was a moment the woman might be killed.

Two more flights.

He climbed a stair, ignoring the flaming pain along his back. Another step, then another until finally he came to a door with a big "7" painted in black lettering. He pushed it open and stepped into the hallway.

There was a man there, a big black man standing in the hallway with a gun at his side. The man whirled and reached for the weapon. George's heartbeat jumped to overdrive and adrenaline washed his brain. He dropped to one knee, and on pure instinct drew a bead, screaming as he pulled the trigger. The blast echoed in the hallway.

He pulled again and again.

Three shots. Surprisingly, all of them hit the target somewhere.

The man fell, crashing into the apartment where the door had just opened. The door tried to slam shut, but the man's body was in the way. George lumbered forward, his voice raw with an incoherent battle cry. His feed brought him an image of a big man of bronze.

There were shots . . . the woman screamed.

What the fuck?

Jones tried to slam the door shut, but the cop was there, gasping for air and bleeding on the floor through a hole in his neck he was trying desperately to hold closed. All of holy fucking hell was breaking loose and Jersey Jones had no idea what to do. The cop tried to grab his foot with one waving hand, but Jones avoided him. Footsteps pounded in the hallway. The shooter was coming near.

His mind froze. He retreated. It was dark in his apartment, and the man appeared at the doorway, half in shadow, half illuminated by the hallway lights. Jones grabbed the bust of John Von Neumann his team had given him as a gag, and he threw it at the man. It scored a hit, but his attacker was a wild bull, screaming obscenities and surging toward him with a gun pointing forward.

"Get your ass down!" George yelled, pointing the Beretta at the shadows as he stepped into the apartment. "You're under arrest, goddamn it! Get your motherfucking ass down!"

But instead, Jones ran, and George went into pursuit mode, crashing into the apartment's living space and squeezing off more shots. It was like he had stepped out of his body. He was amped. He felt the crystal clear sense of "now" his buddies said they felt when things got hairy. It was in-fucking-credible. *You fall back on your training, they all said as they drank beer and popped peanuts. Things just happen.* And now these things were happening to George.

He blew a hole in the wall, and he destroyed a disc player, and he hit other things that were not Jersey Jones.

But at least he had the bastard on the run.

A bullet smashed through the wall and ripped into a small electronic device. The bullet did not know what the device did—nor, of course, did George. The box shattered, though, breaking into pieces of laminate, wire, fiberglass, and chips. And as the device shattered, the feed it was pushing into Andrelline Smith's brain came to its end.

Self-control hit her so hard it snapped her head around.

Her legs were free, but her arms were locked down. Andrelline heard the shooting and the grunts and screams of male voices that came from the other room. She was intensely aware of her nakedness. The chair was hard-backed and made of sturdy wood. She jerked against it, but the ropes were firm at her wrists and elbows. She struggled to her feet, and found herself standing there, hunched over like Quasimodo.

Jones hit the floor when the shots started coming. He crawled into the kitchenette where maybe he could grab a knife or something. A bullet blew a hole in the cabinet above him. He used the counter to pull himself up, then threw his blender. It looped through the air, power cord whipping around.

The hulking man dodged, but his ankle buckled. He lurched, sending a bullet into the ceiling as he crashed to the floor, the crown of his head thudding against the edge of the coffee table. The gun fell away.

There was an instant of total silence.

Then Jones heard screaming from all around. A roar of confusion raged inside his brain. The detective was moaning. Crap. He had to get out of here. Now. He picked up the gun. It was heavy.

A noise came from the bedroom—the woman. He went to the door, trying to decide if he should kill her as he reached for the doorknob.

Andrelline launched herself at the door. It flew open with a crash, catching the man by surprise and breaking a leg from the chair. The man screamed and a gun dropped to the floor. "Son of a bitch!" the man yelled, straightening with one hand over what was probably a broken wrist. His eyes filled with anger. "What the hell have you done?" He reached down for the gun.

Andrelline ran at him, ducking her shoulder and catching him in the gut with one corner of the chair. She felt his grunt as much as she heard it, felt it in her arms and her back and her legs. She felt leverage, lifting him, using the chair to drive him

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backward, away from the gun. His legs wheeled to keep himself upright as she pushed him across the floor and through the dining area to crash against a flimsy table that scudded away and slammed against the wall.

Then there was a crash of glass.

Jersey Jones felt the window give way against his back, felt his leg hit the pane as he fell into open space. Shards of glass broke light into its component parts, raining prismatic reflections on him as he fell. He saw the moon, and he saw Orion's belt.

Then he saw no more.

One of the chair's arms had loosened. Andrelline twisted until her hand came free, then found a knife in the kitchen to cut away the rest of the ropes. The man on the living room floor was out cold, maybe dead. The one in the doorway had stopped moaning. She couldn't tell if he was breathing or not, but he lay in a growing pool of crimson that made her sick to her stomach. She picked up the phone and called 9-1-1. She couldn't find her clothes and didn't remember where they might be, so while she talked to the response agent, she opened a dresser drawer and grabbed one of the man's T-shirts. It was huge on her, yet still she felt naked.

Then she was off the phone.

In the distance, police sirens echoed through the streets.

People are formed of their environments, yet, as a prime cannot be represented by others, there are those among us who weather their pain rather than wear it.

Nature or nurture? A question as old as the species.

Andrelline stood in Jersey Jones's apartment, waiting.

Across the street, Harol and the kids were sleeping. They cared for her, of course, though they didn't know who she *really* was. How could they? She hadn't known herself until a moment ago. Until this evening, she had been about getting along, creating calm, finding ways to co-exist so she could make it from day-to-day. These skills come naturally when you're a child and you live in split families who don't like each other. You cope. You manage. Sometimes you even give up parts of yourself.

Later, Andrelline would learn that the man who died in the doorway was a detective, a good man who was in the wrong place at the wrong time. She spoke to his daughter at the funeral. Charlane was bright and young. Andrelline would eventually decide to help with her tuition the next three years, and would on this night have been happy to know they would become friendly, that both would travel, and that they would meet up for dinner on many occasions when they found themselves in the same cities. The man on the living room floor would live, and would do time for reckless homicide and killing a police officer. The man who lay dead on the sidewalk was a psychopath who needed help.

It was Jones, the psychopath of course, who actually changed her.

When she drove her shoulder and the chair this man had tied her to into his chest, when she felt her legs drive forward, fighting for her life, fighting for her connection to her children, fighting for everything she cared about, Andrelline discovered that it was not death she feared, nor was it conflict, or being alone, or even being insignificant. What she feared most was living a life defined by other people.

In that moment she became the ultimate prime, the number one.

That night, standing at the window of Jersey Jones's apartment, waiting for the police to arrive, and intensely aware of the stream of ads for boutiques, and fitness centers, and (most oddly) sanitary napkins that scrolled across her feed, Andrelline Smith vowed she would never again let the world decide what she was going to be. ○

Steve Rasnic Tem's newest collections are *Celestial Inventories* (ChiZine) and *Twember* (NewCon Press), which includes several stories from *Asimov's*. His novel *Blood Kin* appears from Solaris in March. Steve's tales are often heart-breaking, but his latest is pretty amusing. Unless you're Carl!

THE CARL PARADOX

Steve Rasnic Tem

The fact that Carl did not recognize himself as the man at his front door was no surprise. In Carl's mind he closely resembled Raymond Massey as the young Abe Lincoln in that 1940 film classic *Abe Lincoln in Illinois*. Whereas a less charitable observer might have insisted he resembled more Mary Todd Lincoln in her oft-repeated fantasy *Robert E. Lee is at the Door Where's My Perfume?*

"Dad, what's *wrong*? You look terrible!" Carl said to himself at the front door.

The older Carl looked down at himself, or at least the self he had been thirty years previously, and replied, "You never were very quick on the uptake, were you, Carl? That was always your biggest problem." He barged past his younger, less decisive self and entered his old living room. It was every bit as shabby as he remembered—a sagging gold couch with a stain roughly the shape and taste of Italy, multi-colored patch rug guaranteed to camouflage the worst of a twenty-something's bodily fluid spills, Kiss poster on the wall, Gene Simmons' tongue a fleshy pennant of Pepto-Bismol pink. It was far, far worse than he remembered. How did he ever get dates? Oh, that's right—he didn't.

He could feel the younger Carl breathing noisily behind him. It would be another five years before he would get that deviated septum fixed. "What's the matter, Dad? Mom kick you out again?"

That sounded about right. In another year she *would* kick the old man out, permanently that/this time, after catching him in bed with a cat, a curling iron, and ten pounds of butter. Carl and his dad had been quite close. He'd once asked for a puppy and his dad brought home a badger in a dog collar.

The older Carl turned around and embraced the younger Carl, pulling him close, eye-to-eye, nose-to-nose. The younger Carl responded with, "Hey, not unless you buy me dinner first!"

"Shhh, you idiot. Remember that time in the eighth grade, when you caught yourself looking at yourself from the mirror, so you spent most of the day locked up in your bathroom with your face against the mirror, peering from different angles, daring yourself to try that again?"

"Whoa!" The younger Carl broke away. "No one knows about that!"

"Remember that book you had to read senior year, H.G. Wells' *The Time Machine*? And how for the next week you had several imaginary romantic interludes involving Annie Oakley and a mule named *Whoa Pardner*?"

"Whoa! I mean—Gosh! How do you know this stuff?"

"It's *me*, or rather, I'm *you*, but in thirty years. *The Time Machine*, remember?"

"I read the comic book version."

"I know, I know you did. But it's the same basic story—guy travels through time."

"You built a time machine? *I* built a time machine? How cool is that!"

"Are you kidding me?" The older Carl wondered if traveling back in time might have shaved a few IQ points off the younger Carl. "*You* couldn't pass ninth grade math. It was your friend, *our* friend Hector. *He* invented a time machine."

"Hector? Mister uber-brow? He still can't keep his shoes tied."

"Doesn't need to. He invented the contour adaptable magnetic clasp around, well, ten years from now. He's become like Einstein, but with marginally better hair."

Older Carl became uncomfortably aware that younger Carl was staring at him. And he was pretty sure why. "*But dude*," young Carl began. "*What happened to you?*"

"Watch it, kid. Remember when you started using that word? You were calling guys *dud* for almost a year before someone took pity and corrected you."

"No disrespect, but you . . . we really let ourselves go."

Older Carl scanned the apartment, then waved toward the dining room table stacked with beer bottles and pizza remains. "Look at that autopsy interruptus over there. We never learned to cook, not until we married Marianne, and as far as that went, what can I say? For her, lard was a condiment." Young Carl started grinning this loopy, I-just-had-my-frontal-lobe-removed grin. "No, wait—I know what you're thinking . . ."

"Marianne Higgins? She finally agreed to go out with me? She finally said *yes*!"

"No, no—this is *not* a good thing. She's going to ruin your life. That's why Hector let me come back. We're going to be *famous*! The first man to travel through time! He's a good friend to us, and he hates what she's done to me, to us, to pretty much every guy she ever came into contact with."

"Oh, but you're wrong about her. She's *great*, just this really wonderful person. You must know how much I love her—you know everything else! Are you telling me you've forgotten?"

"Not at all, not at all. You've got the backbone of lemon Jell-o around her. It's downright self-disgusting. I've seen parsley sprigs with more self-respect."

"You've just gotten *old*—you've forgotten what true love is like!"

"The love she had for us was like a washcloth. Soft and warm and comforting at first, but then after awhile it gets really cold and if you fall asleep with it on your chest you wake up with this frigid, uncomfortable, wrinkled square on your skin that lasts for hours and then you can't find that damn washcloth for weeks until you feel this crusty dry thing jammed into the foot of the bed under the covers all stiff and hard and smelly like a dead fish with your chest hair stuck to it. That's what life married to Marianne was like."

"Old Dude, that's just wrong on so many levels. Your story doesn't make any sense anyway. I'm not dumb, you know—I watch *Doctor Who*. You *can't* be me! That would be like, a time paradox, right? Meeting and talking to your younger self. One of us should have, like, *exploded*, right? Didn't happen."

"Well . . ." Older Carl started rubbing his face, a nervous habit that had begun years ago—he looked up—younger Carl was also rubbing his face. Older Carl stuffed his hands into his pockets. "I didn't really want to bring this up. And I hope you won't take this the wrong way. But the reason Hector was willing to send me back to today was that after he ran some figures and tested out some scenarios, well, he discovered that the severity of paradoxical consequences varied depending on the individual, and that in certain select circumstances the chances of that consequence being of significance to the rest of the populace approached, well, zero."

"Come again?"

"Hector decided we, you/I, weren't important enough to change anything. *Whatever* we do, we're like, insignificant variables."

"Really?"

"I'm afraid so. The only difference, apparently, is the major dressing used on a roast beef club sandwich at a place called Garalfalo's."

"That's the sandwich shop down the street. I go there all the time."

Older Carl pondered this. "I remember that place—I just couldn't remember the name. Maybe after my visit you'll go there more often than you normally would have, maybe order different things."

"You mean my life is like, a condiment—my significance as a human being boils down to a selection of condiments. Not the bread, not the meat, not a choice of beverage—just the condiment being used?"

"You were always such a pessimist—that was another one of your big problems. Maybe if you'd been a little more optimistic about things you'd have held out for someone better than Marianne."

"Cut out all that crap about Marianne! I don't care if you're older, or even if you're me, you're cruisin' for a bruise, Mister!"

Older Carl took a self-defensive stance. "Careful youngster, I know your best—or at least your *one*—move. Ten years into your future *I'm* taking lessons."

There was a knock at the door. Older Carl stared at it, a creepy feeling rising from his stomach. He watched apprehensively as the younger Carl went to the door and opened it.

Carl Number 3 stood there, well dressed in suit and tie. The other two Carls stared at him. No one spoke at first.

"He's older, like you," younger Carl finally said.

"The exact same age, I suspect," the older Carl replied, thinking that birthday gifts would be somewhat problematic this year.

"Actually, a few days older, but I've always taken good care of myself." Carl Number 3 entered the room. He held up a small remote control device. "You forgot something," he said.

The older Carl (beginning to think of himself as Carl Number 2 now) frantically searched his pockets. They were empty. "The return device—I'm sure I had it."

"No, you never did—you left it on Hector's work bench. You would have figured that out in a couple of hours. Pretty lame move, Carl."

The young Carl guffawed. "*Dude*, you're so *stupid*. How are you going to get back now?"

"He/I had to wait a little over thirty years, actually, so that we could pick it up off the bench where you," he pointed at the young Carl. "Left it."

"Whoa, dude. I didn't—"

"You *will*," Carl Number 3 said. "*He* probably wouldn't have made that mistake, if you hadn't been so irresponsible most of your life."

"Wait, just wait a minute," Carl Number 2, the former Older Carl, said. "So you're me, in about thirty years?"

"That's right, just a little, well, a *great deal* better dressed."

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"But you've hardly aged."

"It's the thing about time travel. You don't start aging again until you reach the age you were when you first traveled back. We only know that because you forgot the return remote. If you'd/T'd gone back the way we were originally supposed to, we'd never have known this."

"Wait wait wait!" Carl Number 2 cried. "So you and I are the *same version* of Carl? How can we be here at the same time?"

"Well, unfortunately, it's a factor of our personal insignificance. The Universe doesn't seem to care we're both here at the same time."

"Whoa, that sucks, dudes," the younger Carl said.

"Shut up!" Number 2 and Number 3 said to him simultaneously.

But Carl Number 2 still wasn't satisfied with the explanation. "But why did you come back? I was already here—you didn't *need* to."

"I had to come back to counteract your message." He turned to the younger Carl. "Don't listen to him, Carl. You need to marry Marianne."

"What? After all she did to him, to me, to us?"

"I kept my distance, observing," Carl Number 3 replied.

"So we don't get to be buds?" the young Carl interjected.

The other two Carls ignored him. "I could see the young, immature mistakes young Carl was making. Marianne wasn't a bad person, she just needed an older, more mature man. We're together now."

"You bastard!" Carl Number 1 shouted, running toward Carl Number 3. Carl Number 2 stepped between them and struggled to keep the young Carl (forever after to be known as Carl Number 1) from attacking Carl Number 3.

"You had your chance," Carl Number 3 stated smugly.

"Come on guys, shake," Carl Number 2 declared. "After all, we're all Carls here."

Carl Number 1 approached Carl Number 3 shyly. "Sorry," he said. "All Carls together, right?" Suddenly he reached out and yanked the return remote from Carl Number 3's hand. "See ya!" He disappeared.

The remaining two Carls stared at each other, stunned. Carl Number 3 ran out into the hall, ran back in again and shut the door. "No sign. He actually went ahead in our place."

"So what's *that* going to do?" Carl Number 2 asked.

"No idea." Carl Number 3 shook his head. "He could do a ton of damage down the timeline. You *know* how he is."

At that moment there was a crash against the door, and then two struggling forms burst in: the younger, red-faced Carl Number 1, and a much older, white-haired Carl clutching young Carl's arm in one hand and the return remote in the other.

"Let go!" Carl Number 1 screamed. "Give that back—it's *mine*!"

"Then behave yourself," Old Man Carl said, his voice strained and hoarse. "And I'll be holding on to the return remote for now. You're just a kid."

"What about Marianne?" Carl Number 3 said. "Is she okay?"

"Don't talk to me about that witch!" Old Man Carl shook a thin, tortured-looking fist. "Woman ruined my life. She's been cheating on us with Hector the whole time!"

Three Carls burst from the bathroom, shoving each other, all of them covered with shaving cream. Four more Carls walked in from the kitchen, laden with beers and food, which they distributed to any Carl who wanted some. Carl Number 1's whining protests were ignored.

A line of Carls appeared at the shattered front door. Carl Number 2 asked them to please wait in the hallway. There were some arguments over seniority, but eventually they all complied.

After a half hour or so things settled into a kind of uneasy silence. Carl Number 1

lay slumped against one wall of the living room, drunk and dejected. The old couch bowed at the middle from all the Carls silently sitting there. There were Carls standing, leaning against walls, and Carls sitting on the floor, examining their fingernails.

Carl Number 2 looked at Carl Number 3 and pointed at young Carl Number 1 lying on the floor. "Reminds me of some of the parties he used to throw. Him, him, and him, sitting on that couch, wondering why no one else came."

When the moment arrived, they all looked up, and at each other, not really understanding what was about to happen, but sensing with some relief that there are limits to insignificance, and that enough insignificance can become surprisingly significant in a very short time.

The apartment building disappeared in a cloud of smoke and debris. Some said the resulting sinkhole went down for miles. Others said its depth was beyond even that.

Within a few hours a late model convertible stopped and parked well behind the police line. A beautiful young woman and her perhaps twin/perhaps older sister got out for a better look. Some later said the young woman was breathtaking, but the older one—well, they just couldn't keep their eyes off her. A few less charitable observers were overheard to say the older one had obviously had a lot of work done.

"What do you think happened?" Marianne asked in a whisper.

"Oh, I don't know," the older and more experienced Marianne replied. "But I'd say there was obviously way too much Carl. Believe me, I'm an expert."

Then they climbed back into the car and left, each holding firmly to one half of a small remote. Hector would be expecting them, and neither intended to be left behind. >

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1. Publication Title: Asimov's Science Fiction; 2. Publication Number: 522-310; 3. Filing Date: 9/30/13; 4. Issue Frequency: Monthly except for combined issues Apr./May and Oct./Nov.; 5. Number of Issues Published Annually: 10; 6. Annual Subscription Price: \$55.90; 7. Complete Mailing Address of Known Office of Publication: 6 Prowitt St., Norwalk, CT 06855-1220; Contact Person: Penny Sarafin; Telephone: (203) 866-6688; 8. Complete Mailing Address of Headquarters or General Business Office of Publisher: 6 Prowitt St., Norwalk, CT 06855-1220; 9. Full Names and Complete Mailing Address of Publisher: Dell Magazines, 6 Prowitt St., Norwalk, CT 06855; Editor: Sheila Williams, Dell Magazines, 267 Broadway, 4th Floor, New York, NY 10007; Managing Editor: Emily Hockaday, Dell Magazines, 267 Broadway, 4th Floor, New York, NY 10007; 10. Owner: Penny Publications, LLC, 6 Prowitt Street, Norwalk, CT 06855-1220. Shareholders owning 1% or more are John, James, and Peter Kanter, 6 Prowitt St., Norwalk, CT 06855-1220; 11. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities: There are no bondholders, mortgagees, or other security holders; 12. Tax Status: N/A; 13. Publication Title: Asimov's Science Fiction; 14. Issue Date for Circulation Data: 2/13; 15. Extent and Nature of Circulation—Average No. Copies Each Issue During Preceding 12 Months. a1. Total Number of Copies: 19,006; b1a. Mailed Outside-County Paid Subscriptions Stated on PS Form 3541: 10,048; b2a. Mailed In-County Paid Subscriptions Stated on PS Form 3541: 0; b3a. Paid Distribution Outside the Mails Including Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Paid Distribution Outside USPS: 7,358; b4a. Paid Distribution by Other Classes of Mail Through the USPS: 17,406; c1. Total Paid Distribution: 0; d1a. Free or Nominal Rate Outside-County Copies Included on PS Form 3541: 26; d2a. Free or Nominal Rate In-County Copies Included on PS Form 3541: 0; d3a. Free or Nominal Rate Copies Mailed at Other Classes Through the USPS: 0; d4a. Free or Nominal Rate Distribution Outside the Mail: 0; e1. Total Free or Nominal Rate Distribution: 26; f1. Total Distribution: 17,432; g1. Copies not Distributed: 1,574; h1. Total: 19,006; i1. Percent Paid: 100%; 15. Extent and Nature of Circulation—No. Copies of Single Issue Published Nearest to Filing Date. a2. Total Number of Copies: 17,805; b1b. Mailed Outside-County Paid Subscriptions Stated on PS Form 3541: 9,572; b2b. Mailed In-County Paid Subscriptions Stated on PS Form 3541: 0; b3b. Paid Distribution Outside the Mails Including Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Paid Distribution Outside USPS: 6,915; b4b. Paid Distribution by Other Classes of Mail Through the USPS: 16,487; c2. Total Paid Distribution: 0; d1b. Free or Nominal Rate Outside-County Copies Included on PS Form 3541: 26; d2b. Free or Nominal Rate In-County Copies Included on PS Form 3541: 0; d3b. Free or Nominal Rate Copies Mailed at Other Classes Through the USPS: 0; d4b. Free or Nominal Rate Distribution Outside the Mail: 0; e2. Total Free or Nominal Rate Distribution: 26; f2. Total Distribution: 16,513; g2. Copies not Distributed: 1,292; h2. Total: 17,805; i2. Percent Paid: 100%; 16. Publication of Statement of Ownership: Publication required. Will be printed in the 1/14 issue of this publication; 17. Signature and Title of Publisher: Peter Kanter. Date: 10/1/13.

THE COMMON GOOD

Nancy Kress

Nancy Kress is the Hugo- and Nebula-winning author of thirty-one books, most recently *After the Fall, Before the Fall, During the Fall* (Tachyon Press). "The Common Good" grew out of her general bemusement at how differently Republicans and Democrats envision what might be good for the United States, which led to an even more general bemusement at how people often have completely opposite ideas of what is in the best interests of humanity. The aliens are extra. This story is a sort of sequel set seventy years after a 2008 tale called "The Kindness of Strangers."

I: Outside

The final fight between Zed and his father was about the aliens. It followed the same pattern as the other fights, those about weeding or water fetching or deer hunting, because none of the arguments were about their ostensible subject. Zed was seventeen. His parents were nearing sixty and had lived all their lives in the mountains of what had been western Massachusetts, and maybe still was. That became part of the fight.

"You don't know anything because you won't go anywhere!" Zed yelled, his strong, long legs planted apart on the worn kitchen floor. "You just stay on this fucking farm and rot!"

"Zed, please . . ." his mother whispered at the same moment that his father shouted. "I know enough to recognize a piss-dumb moron when I see one! Now get outside and chop that wood!"

"No," Zed said.

It was a first. His mother gaped at him, a tooth missing in the front of her mouth. His father stood, face purple with rage. When he took off his belt and advanced on Zed, Zed punched him in the stomach. He hadn't planned on it; the act sprouted all at once, an instant oak whose roots stretched and intertwined deep underground.

"Oh my dear God," his mother said. And then to Zed, "Go! Go!"

Zed, looking down at his father gasping for air on the cabin floor, didn't know if she meant go chop the wood or go to his room or go away from the farm. The uncertainty created a space for action. He raced upstairs, threw a few things into his pillowcase, grabbed his .22, and flew back down the stairwell. His father sat doubled-over on a

chair, his mother fluttering around him. When Zed yanked open the kitchen door, the lantern on the table flickered in the sudden draft.

A lantern. Chopping wood. Chickens squawking in their pen. Zed slammed the butt of his rifle against the wire. His parents lived—which meant *Zed* had to live—his entire pathetic life on this hardscrabble farm, in fear that “it” might happen again. Neither one would so much as say aloud the words “June thirtieth.” And they lived like it was 1870, not 2070. His father had even taught himself to pour his own bullets for the antique rifle he didn’t even need. You could buy bullets down in Carlsville. If his father had had his way, Zed wouldn’t have even gone to Carlsville Elementary or known that anything else existed! For that alone, the old man deserved that punch.

Zed couldn’t go back. Not after that. He was free.

Only—

He stood at the head of the trail, gnawing at his fingernails, pillowcase at his feet. Around him the sweet-smelling June dusk gathered in deep folds. The western sky faded from pink to silver and the first stars came out, Altair and Deneb and Vega. In an hour or so the full moon would rise. Zed had never gone the full ten miles to the village in the dark, but after the first few miles there would be the road, cracked and impassable to vehicles but a clear marker. He could do it. He could also live almost indefinitely in the woods, but he’d had more than enough of that. No, he would go to the only place he could go—Jonathan’s. They would take him in.

Wouldn’t they?

A sound came to him, faint on the twilight. It might have been his mother, calling his name in her thin, ineffectual voice.

He slung his pillowcase, made of cheap flowered cotton in what used to be China, over his shoulder and started down the mountain.

Electric lights. Music. A summer dance. Figures swaying on the empty parking lot beside the courthouse. All the things Zed had been denied his whole life. He stood, sweaty and resentful and shy, in the shadow of trees and watched the dancers even though he knew that Jonathan wouldn’t be among them, not in a million years. The parking lot was newly paved since Zed had last attended school, just before spring planting started. They must have gotten the asphalt factory on-line again.

Not that Zed had ever experienced being “on-line.” The village had a few working computers, but he had never used one. Jonathan had. Jonathan’s family *owned* one.

What was he going to do if they wouldn’t take him in? They had to. Synergy, right?

He made his way past the dark school, past the trading market and the scrip stores, the truck depot with its precious store of parts, the armory. There, he paused to put two fingers into bullet holes from the ’15 attacks on Carlsville. The old brick felt soft on his bitten nails. It was so long ago.

Jonathan’s house stood large at the far end of town, shaded by two huge maples, gleaming with fresh paint. Lights shone both downstairs and in an upstairs room that Zed hoped was Jonathan’s. The window stood open. Zed stood under it and called softly, “Jonathan! Jonathan! It’s me, Zed Larch!”

Jonathan’s head, silhouetted, stuck itself out the window at the same moment that the front door opened and a woman’s voice said sharply, “Who’s there? Do you need the doctor?”

“No, ma’am!” Zed hated that his voice shook. These people might be rich and educated and all, but Jonathan was his friend and anyway they were no better than he was. Except—he didn’t believe it. None of it. He almost turned to flee back into the darkness.

“Hey,” Jonathan said, “Zed. Well. Come in, I guess.”

"So I wondered if I can stay here a while, working of course, I'm a hard worker and I can farm and chop wood and . . ." He trailed off, miserable. The Bellinghams didn't farm. They didn't need wood chopped; they had an electric stove—there it sat, right in front of the kitchen table around which the four of them sat, Dr. Bellingham and his wife and Jonathan, who didn't look as welcoming as Zed had hoped.

They only knew each other from school. Zack was in a much lower classroom since he'd only started school at age eleven when the sheriff had discovered Zed existed, hiked up the mountain, and threatened Zed's father with jail for child neglect. Boys in Jonathan's class picked on him, skinny and short and too smart and too rich. Zed had thrashed a few of them, and so he and Jonathan had taken to eating lunch together, and sometimes Zed had walked Jonathan safely home. It wasn't much of a friendship, but Zed didn't know that. Jonathan did.

Mrs. Bellingham said, "Your parents will miss you."

"No, ma'am, they won't." How could she be a mother? Zed's mother, who seldom spoke and who grew thinner and grayer and more faded every year, was nothing like Mrs. Bellingham. Dark-haired, with skin smooth as cream, she didn't look much older than Jonathan. Zed's parents, cautious and solitary and taciturn, had not married until they were both forty, and Zed had been a late and, he'd always thought, unpleasant surprise.

Jonathan said sarcastically, "They'll miss Zed? Because any mother would miss a child who stayed away overnight? Is that what you mean, Mom?"

Mrs. Bellingham glanced over at him, then down. Zed perceived complex emotions he didn't understand.

Dr. Bellingham spoke for the first time. Almost as big as Zed, imposing even sitting down, his words seemed to descend from the sky. "Of course the boy can stay here for a while. Synergy. Beth. It's all we have, really—the common good."

It seemed to Zed they had a lot more than that. Many of the things he gazed at were old: the wooden kitchen table, the rug he had glimpsed through an archway leading to the living room, maybe the pictures on the walls in their heavy gold-colored frames. But that stove looked new, which meant somebody somewhere was making stoves again, and a cup of coffee sat on the table in front of him. Zed had taken only one sip and he didn't like it, but he knew what coffee was and he knew it had come from a long way away, from some hot country. In school they'd sung a song every morning: "The world reborn/in our own hands/syner-gee-ey never torn."

Not my hands, he thought, and again resentment against his father rose up in him like vomit.

He said to Dr. Bellingham, "Thank you, sir. I'll do anything you ask!"

"We'll need to find you a job in the village. No shortage of those. You can get work on road repair if nothing else. But what are your long-term plans, son?"

He had no long-term plans. Zed stared miserably at the doctor, this sophisticated man who had a profession, a house, a grasp of what the world was like now. All Zed had was life on a shit-poor farm, the little he'd learned at on-again-off-again school attendance, and his father's rants about June 30th, repeated over and over and over. The only long-term plan you could make out of those things was the life Zed had just left.

Jonathan said, "I'm going off to college in the fall, you know, Zed. I won't be here."

"Yes. You told me. Dartmouth College." Hanover had been just barely small enough to escape June 30th. Zed couldn't imagine it.

"Jonathan will be an engineer," his mother said, with pride. "There is nothing we need more."

"Well, a doctor isn't such a bad thing to be, Ava," the doctor said, and his smile glittered dangerously.

"Probably," Jonathan said in a lazy drawl, "it was a better thing to be when there were real hospitals and real medical research."

Zed looked from one to the other, confused. He knew there was anger here, and resentment, but he didn't understand why. Didn't these people have everything?

"In fifty-six years," the doctor said, his eyes stinging as hail, "we have regained nearly all of medicine lost on June 30th. Now we can again go forward into the kind of research that—"

"Oh," Jonathan said in that same lazy drawl, "I didn't know that anyone was manufacturing MRI scanners again! Or cancer radiation machines! Why didn't you guys inform me?"

Mrs. Bellingham said sharply, "That's enough, Jonathan."

The doctor turned on Zed, who didn't know why he was the sudden target of anger. "Do you even know what happened fifty-six years ago on June 30th? Jonathan said you'd been raised in some sort of survivalist cult that refuses Synergy."

"I—" A cult? What was that? But then, with sudden dignity, Zed said, "Of course I know what happened on June 30th."

"We must never forget," Mrs. Bellingham said, putting her hands together in the Synergy gesture and bending her head. The hands, Zed noted, were soft and white. On the top of her head, her dark hair fell in short shining folds from a part like a white road to somewhere unimaginable.

"No chance of that with you assholes yammering on and on about it," another voice said, and Zed turned in his chair. A girl stood leaning against the archway to the living room, one hip thrust out insolently, her boots shedding mud on the rug. Mrs. Bellingham's head jerked up and she stood so fast that her chair fell over.

"Isobel! Where have you been for the past two days!"

"Wouldn't you like to know," the girl said.

"Go upstairs right now!"

The girl ignored her. "Who's this?"

"I'm . . . Zed." He could hardly speak. He hadn't known girls could look like this, not apart from pictures in books or in fantasies when he lay alone in bed. Long shining dark hair, red lips, breasts high and mostly exposed in a tunic that dipped low in front and high in back, glittering with tiny sewn-in bits of mirror or glass or mica.

Isobel drawled, "Hello, Zed."

Dr. Bellingham thundered, "You heard your mother! Get upstairs right now. Isobel, and wait for me!"

She gave a contemptuous little salute and sauntered out. Jonathan rolled his eyes. Mrs. Bellingham's face was so distorted that her prettiness, which Zed had admired until he saw Isobel, was completely gone. Zed felt as if he were drowning in things he did not understand; they filled his lungs and dragged at his feet.

Jonathan said, "Welcome to the family, Zed." And laughed.

On June 30, 2014, the alien ship had gone into orbit around Earth. Every developed nation had known for a week that it was coming, moving in with amazing speed from the direction of the constellation Leo. The ship had answered none of the communications aimed at it in various languages, verbal and mathematical and musical. China had attempted to shoot it down. The nuclear missile had simply vanished. And then, one by one, so had the major cities of Earth. First, greater Bombay and Karachi, vanishing at 2:16 P.M. No explosion, no dust, no blinding light. One moment, reported dazed observers by satellite, the great cities and their vast suburbs had existed and the next they were gone, leaving bare ground that ended in roads sheared off as neatly as if by a very sharp knife, in halves of temples on the shear line, in bisected holy cows. The ground was not even scorched. People standing beyond the vanishing point saw nothing happen.

Fifteen minutes later it was Delhi, Shanghai, and Moscow.

Fifteen minutes after that, Seoul, Sao Paulo, Istanbul, Lima, and Mexico City.

Then Jakarta, New York, Tokyo, Beijing, Cairo, Tehran, and Riyadh.

By this time the hysterical media had figured out that cities were vanishing in order of size, and by a progression of prime numbers. At 3:16 P.M. (London, Bogotá, Lagos, Baghdad, Bangkok, Lahore, Dacca, Rio de Janeiro, Bangalore, Wuhan, and Tientsin), the panicked evacuations began. Most people were vaporized (except that no vapor remained) long before they reached the end of the murderous city traffic jams.

Canton, Toronto, Jiddah, Abidjan, Chongqing, Santiago, Calcutta, Singapore, Chennai, St. Petersburg, Shenyang, Los Angeles, Ahmadabad.

Seven nations had fired at the ship, which continued to orbit serenely.

Pusan, Alexandria, Hyderabad, Ankara, Pyongyang, Yokohama, Montreal, Casablanca, Ho Chi Minh City, Berlin, Nanjing, Addis Ababa, Poona, Medellin, Kano.

By midnight, when the ship moved out of orbit, all extended urban areas were gone and with them, 54 percent of the global population. In the United States, it was nearly 80 percent. All of Singapore had vanished, 99 percent of the people of Belgium, 93 percent of Israel, 86 percent of Japan, 80 percent of Canada. In places like Papua New Guinea and Burundi, less than 15 percent of the population vanished, but the government centers had disappeared, as they had everywhere in the world, along with their major medical facilities, research areas, universities, financial and corporate centers, transportation hubs, energy sources, and factories. Houston's oil refineries, Silicon Valley's tech companies, Seattle's Boeing facilities, Harvard and Yale and Stanford and Cal Tech, Wall Street, North Carolina's research triangle, Three Mile Island—all gone. Niagara Falls remained, but the power plant and the tourist city were gone.

People grieved and screamed and panicked and prayed. For a year or so there was some rioting, some senseless destruction, but not as much as people like Zed's parents expected. In the small towns and countryside, with its 20 percent of Americans still alive, there still stood intact the sheriffs' offices, the farms, the cars and wood stoves and doctors' offices, and churches. There were no dead to bury, no rubble to clear away, no enemy to attack. Food was everywhere, too much food, food raised to feed a population that no longer existed. It was summer. No one froze before they could build, with their neighbors' help, a fireplace or wood stove. Some people hoarded, and some barricaded themselves in mountain cabins. But most aided each other with digging wells, canning produce, making trading forays to other towns, butchering cows. There were lots of cows. They taught each other whatever skills they had, and the doctors and engineers and professors and physicists who had survived either took apprentices or passed on what they knew in the small-town colleges that had not been vaporized.

A barter system developed, eventually replaced for local transactions with less cumbersome ones based on scrip. However, much of the mutual help grew from something less self-interested than barter. It was clear to even the most libertarian that if any kind of advanced civilization was going to survive, they needed each other. Synergy was born, first a necessity and then a belief and finally almost a religion. Like all religions, it had followers who ardently believed, followers who half believed, proselytizers and heretics and lip-service "faithful" who laid wreaths every June 30th and carried on with their personal concerns the other 364 days.

In fifty-six years, through cooperation and determination and the occasional but not common local war, the daily living had climbed back to where it had been in approximately 1945, minus any meaningful central government. The new historians, few but devout, predicted that the rate of change was about to accelerate dramatically.

The huge vacant areas where cities stood apparently had not been irradiated; no one developed radiation poisoning. Within a month the enormous bare stretches be-

gan to grow grass. Within a year there were bushes, flowers, saplings. The year Zed was born, Boston and New York and Seattle were virgin forests. Chicago was prairie, rich and fertile. New Orleans was a wetlands, thick with plant and animal life. The oceans, no longer over-fished and over-polluted, once again teemed with fish.

When Zed was eleven, the aliens returned.

Mrs. Bellingham, her mouth a thin tight line and her chin wrinkled in fury, led Zed to a small upstairs room with a narrow bed, a chest of drawers, and a rocking chair whose paint was cracked and peeling. A small bathroom lay beyond. She swept out of the room, ignoring his stammered thanks.

Should he go? They didn't want him here. He could survive in the woods, of course—what else had he been doing his whole life? But the Bellinghams were his only gateway out of that life, into . . . he didn't know what. He couldn't go to college like Jonathan, couldn't become anything important. But Dr. Bellingham had said there were plenty of jobs. Road repair, well digging, wind-turbine tending. And when he could, Zed would build himself a cabin of his own. Did you have to buy the land first? From whom?

He knew nothing, nothing. His parents had let him grow up knowing nothing.

Still, a job and a cabin were a plan, and a reason to stay on at the Bellinghams'. And all those reasons, he knew, were the purest bullshit.

He used the toilet (where did the shit go? The Larches had a privy) and washed himself with rusty water from what must be a seldom-used sink. All the while Zed practically groaned with desire. Images of Isobel filled his mind so completely that it took enormous concentration to pull his belongings from his soiled pillowcase and put them away in the chest, to check his rifle as he had done every night for five years, to lie under the musty quilt, his big body filling the narrow bed and making the old springs groan. Masturbation did not help. Exhausted, he nonetheless could not sleep.

But he must have, because the room was colder and the moon had moved, no longer shedding silver light through the window, when Zed woke to a hand on his shoulder.

His reflexes had been honed by nights in the woods. In a millisecond he was on his feet, rifle in hand, moving to keep the wall at his back. All reflexes failed him the moment he heard Isobel's voice, "Hey, don't shoot, Primitive Boy. That's not the kind of violence I want."

As his eyes adjusted, he made out her outline, and was she . . . naked? Was that possible?

It was. Zed's erection swelled at the same moment that she moved to press against him and her lips found his. After that, he lost all awareness, or maybe just all later memory of an awareness so heightened that he didn't know where she ended and he started. He came to himself on the bed, Isobel on top of him, her long hair dripping into his mouth, her voice in the darkness both scornful and amused.

"And that's it? What about me?"

He had no idea what she meant.

She chuckled and showed him. He was astonished. He'd never touched a woman's body before, only seen one in pictures, and no pictures in his father's house showed *that*. They went through the entire sequence twice, and then, spent, he lay with her in his arms and thought that if he died at this moment, it would be of sheer happiness. He didn't know that the thought was banal. But when he said it aloud to Isobel, she only chuckled again.

"I love you, Isobel!"

"Whoa, Primitive Boy. We're not there yet."

"But we—"

"Tell me what you know about the aliens."

What? Utterly confused, Zed tried to peer at her face, but she lay with her head against his shoulder and he couldn't see her expression. Her voice had lost its amused chuckle.

"I mean it, Zed. Tell me what you know about the aliens."

It was the first time she'd used his name. He stumbled forward, wanting to please.

"Well, they . . . they came in 2014 and—"

"Not history. What you know about them now."

"They're back, right? They live on the coast, under some sort of energy dome, in what used to be . . . umm, Providence."

"Boston. That's it? That's all you know?"

His father had ranted against the aliens every night. Mrs. Bellingham had bent her head and said, "We must never forget." What else was there to know? Stupid, stupid—he was so stupid!

He said humbly, "That's all I know."

"You didn't hear that they're taking in some humans to work in the energy dome?"

No, he most definitely had not heard that! He started so violently that the springs on the old bed shrilled like trapped rabbits. Zed said, "What do you mean, 'work'? Are they doing experiments on people?" It was one of his father's rants: *Goddamn aliens probably kidnapping human children and torturing them to learn how we're made, all the better to enslave us!*

"Experiments? No. Why would they?"

It was a question that had occurred to Zed during his father's rants, but he had never asked it.

Isobel continued, "They can cross interstellar space! They can destroy entire cities! Why would they need to torture us to learn anything, and why would they need humans for slaves?"

There was something wrong with Isobel's argument, but Zed was too sated, and too enthralled, to figure out what. He said humbly, humility so natural to him anyway, "I don't know. Why do you think they're here?"

"They like the place. They're having a vacation. The human workers who have come out from the dome say—"

"Wait! You mean humans can go in and out?"

"That's what I heard. I mean, not every day, they live there, but I heard about one girl who decided to quit her job and they just opened a gate in the energy dome and out she went. Didn't you hear that?"

Zed never heard anything, but he'd had time to find the flaw in her argument. "If they have so much technology that they don't need slaves, then why do they need human workers?"

"Ah, that's the big question. One of them, anyway. The other is what happened to the girl who came out of the dome. She disappeared."

"The aliens killed her?"

"No. God, you really are an innocent, aren't you? She lived in one of the towns closest to the dome, and when she went home, the Earthers killed her. For fraternizing."

Zed did know about the Earthers. They were the underground resistance movement, dedicated to revenging the cities and driving the aliens from Earth. So far, they had accomplished zero toward either goal.

Isobel said, "Wouldn't you think that almost sixty years would be enough to get over June 30th? Sixty years after World War II we were allies with Japan even though we dropped atom bombs on them. Hell, thirty years later we were allies! Plus with Germany, and all that."

Zed had barely heard of World War II—was that back when those "Romans" built a

great city? He didn't know what to say, so he said nothing. Isobel detached herself from his arms and rose up on one elbow. Again the bed groaned. "Zed, do you hate the aliens?"

Did he? Until this bewildering evening, he assumed that he had. But what Isobel said had made sense. His grandfather, Zed knew, had once fought in a place called Iraq, someplace across the ocean, and been killed there. His mother had said so, mourning that long ago in her soft, tired voice. Yet his mother hadn't mentioned hating any Iraq people. Well, she never mentioned them at all except for that once, but didn't that mean that she didn't hate them? His father mentioned things he hated all the time: the aliens, the "illegitimate government" that made Zed attend school, the storekeeper in Carlsville who charged ten scrip for a bag of sugar, the aliens, raccoons that ate the fruit crop, the aliens . . .

The one thing Zed was surest of was that he did not want to be his father.

"No," he said slowly, "I guess I don't hate the aliens."

"It's a complex subject because—"

Zed never heard why it was a complex subject because Isobel fell off the bed. She'd shifted her weight too far to the left and slipped off, and she must have landed on something sharp because she screamed: loud, piercing, high. She went on screaming and Zed leapt off the other side of the bed and called out something, he wasn't sure what. Before he could reach Isobel, or the light switch, or his wits, the door was flung open, light flooded the room, and Dr. Bellingham stood there in a vast pair of loose cotton pants, his face already turning purple.

"What the—oh, my God!"

Isobel had started to cry. "It hurts, oh it hurts. . . ."

Zed cupped his hands over his penis, which helped not at all. Both of them naked, Isobel hurt and sobbing, the Bellinghams would think Zed had *raped* her—

They didn't. Mrs. Bellingham appeared behind the doctor and hissed at Isobel, "You little slut!" Dr. Bellingham flung the blanket over Isobel's nakedness and began reaching carefully under it to examine her back. Jonathan appeared in the doorway behind his mother. Zed pulled the sheet off the bed and draped it around him, his heart pumping so hard that no words would rise up past it.

Dr. Bellingham said, without looking up from Isobel, "Go, you. Go!"

Just what his mother had said to him yesterday. Zed pulled his things from the chest of drawers and frantically stuffed them into his dirty pillowcase. He grabbed his rifle. Still wearing the sheet, not looking at any of them, he sprinted down the stairs and outside. Behind a clump of bushes on the lawn, he dressed as fast as he could and ran down the empty street in the direction the street lamps ceased. He didn't know if Dr. Bellingham or Jonathan—well, no, not Jonathan, not that spindly intelligent body—would come after him with a gun. Still, it wasn't fear that drove him, but shame.

And loss. Once he was again in the familiar environment of a forest, Zed sank to his knees and put his head in his hands. He'd fucked up. He'd lost her. *Isobel, Isobel, Isobel . . .*

Dawn rose behind him, red and gold, and the stars faded slowly from sight.

He headed south until he came to another town, bigger than Carlsville but not by much. Zed found a cornfield, maybe two acres, with too many weeds between the calf-high plants. He offered to weed in exchange for food and a place to sleep a few nights. The farmer, a middle-aged woman with a face like an old boot and kind eyes, looked him over and agreed. He worked until evening. She brought him lunch in the field and he had dinner with her family, three half-grown sons and a little girl. No husband. The family prayed before eating. No one mentioned aliens.

He slept, fitfully, in the barn, to the soft lowing of cows. He'd thought he might dream of Isobel, but instead he dreamed of his mother. He was a little boy again and she sat with him in summer woods beside their spring, teaching him the names of wildflowers: Queen Anne's lace, buttercup, Indian paintbrush. Abruptly the memory changed to terror as something huge and formless and black swarmed up the mountainside. His mother put herself between Zed and the horror, as she had never done with his father, but it made no difference: the sticky black goo drowned them both.

He worked the whole next morning, and she asked him to stay on for the summer. "I can't, ma'am," he said. "I'm sorry."

"There's someplace you need to be?"

"Yes, ma'am."

She studied him. "All right. But it don't look good to me. You got a transparent face, boy."

"Can you tell me which way the alien domes are?"

She didn't change expression. A long silence, followed by, "Don't do it."

"Don't—"

"Don't go near them aliens. You know what they done."

"Ma'am . . . it was sixty years ago."

"Don't matter if it was six hundred years ago. My grandparents died in Worcester, leaving my mother and uncle orphans."

"I'm sorry."

"Don't go there. You seem like a nice kid. Stay away."

He shook his head. She packed up some food for him. Just when Zed had decided she'd cut off all conversation, she said, "Take the road south till you get to Route 90. The signs are gone but you'll know it, it's the old highway. It goes east all the way to Boston, where the dome is. Be careful, there's stretches where the old cities used to be that are pretty lawless."

"I will. And thank you."

He was not a "nice kid," Zed reflected as he walked the road under the bright noon sun. He was rotten with lust, hollowed out by it like a fallen log by termites. He ached for Isobel. The only thing big enough and spectacular enough to get her out of him would be aliens.

Isobel, Isobel, Isobel . . .

And then, when he reached Route 90 in the early evening, she was there.

The old interstate Thruway was in places a mass of cracked and broken pavement. In other places, near or between towns, two lanes had been kept in repair by local governments. At greater Springfield, Sturbridge, and Worcester, the road was nearly impassable. At first the people in nearby towns were too busy grieving and surviving to go to the sites of the lost cities. Then some were too superstitious. Sturbridge, in particular, was rumored to be haunted. Trees grew up through the roadway. As trade between towns flourished, a well-worn dirt road, hard-packed, paralleled Route 90.

Both the United States and Massachusetts had nominal governments, but mostly because people wanted to keep the American traditions alive. Neither government had any power. The old saw from a hundred years earlier was reality: All politics were local. Law worked best in small locales, where everyone knew everyone else's business, or in huge ones, where the vanished cities had been populous enough to afford a small army of police, courts, lawyers, legislators, and prison guards.

Isobel, ghostly in the dusk, walked out of a clump of trees where the road from Carlsville met Route 90. At first Zed thought she was unreal, something he'd conjured up in his tired mind. Then she spoke.

"I thought you'd never get here, Primitive Boy."

"Isobel . . . how . . . ?"

"You think you're the only one who can leave home? Or wants to?" She walked close and pressed her body into his. "Did you miss me?"

He grabbed her and kissed her all over her face and hair and neck and shoulders. He thought he might cry. Her shoulders were knotted with tension, but her tone was all light sarcasm.

"Now, now, save it for later. We got to make a safe camp."

"How—"

"C'mon. Off the road."

She showed him the dirt bike she'd stolen from someone. He was shocked but said nothing. She showed him scrip (also stolen? He didn't ask), a lightweight tent, dried food, a handgun, and ammunition. He'd seen such things only in shop windows. They made camp, made a small fire, made love. Her back must have healed really quickly. When Isobel finally told him they could be at the dome in two or three days if the weather and the dirt bike held out, Zed didn't ask how she knew where he was going. He was too happy, and his entire life had taught him to not ask questions of stronger personalities than his own. You never got any answers.

Just before sleep, Isobel said, "You're sweet. Maybe the sweetest person I ever met."

"You, too," he mumbled, too sleepy to ask about the unfamiliar tone in her voice: reluctant regret.

The weather did not hold out. The bike did not hold out. No one in any of the towns they passed through had the parts to fix it. America had become adept at conserving and jerry-rigging anything manufactured, but the bike was just too old. Isobel kicked it hard, bruising her foot even through her boot. They walked, in rain.

She tired far more easily than Zed. Sometimes the rain was too heavy, or the road too potentially dangerous, to risk a fire. Then she shivered in the tent while Zed tried to warm her with blankets and sex. Usually it worked, or she said it did.

On the fourth day, the weather cleared. Isobel sent him to buy food in the largest town they'd come to yet. When he returned, laden with packages and triumphant with a rabbit he'd shot to roast, Isobel sat before their tent with three men. Zed dropped his packages and reached for his .22. But she saw him, rose, and beckoned him forward.

"Zed! Look—my cousins!"

They didn't look like cousins. Older, unsmiling, faces closed as rock, they reminded Zed of his father. The oldest, maybe forty, held out his hand.

"Hi, Zed. I'm Gary. Isobel radioed us that you two were here."

Radioed? Isobel had a radio? Zed knew that once there had been a whole system of phones you could hold in your hand, of televisions and computer stations (or whatever they'd been called), of satellites in orbit that made communications instantaneous even across oceans. Then the nerve centers for these things, the TV stations and cell towers and servers and launch sites, had gone. The artifacts remained and some had been gotten working again, for local TV and rerouted cell networks and small servers. The problem, as with the dirt bike, had been parts. The factories, American and foreign, no longer existed. A few electronic geniuses, mostly young, had concentrated on cannibalizing computers and some still worked. Zed had heard that in some places factories were producing TVs again, and TV shows. Everybody else made do with crystal radios. Even his father had had one, so he would know when the aliens made their second assault on humanity. Once a month, he tested the radio.

"Isobel, why didn't you tell me that—"

"Gary says there's trouble ahead. Outlaws. He and Luke and Dave came to take us the rest of the way to the dome. They have a truck."

Zed saw it, then, parked just under cover of the trees, seventy years old and still running due to fanatical care and parts cannibalized from other vehicles. It ran on corn alcohol now, but it ran. He and Isobel had passed a surprising number of cars on the road. Small towns were more likely to have spare parts for cars than for cell towers or orbital satellites.

"Get in," Gary said. "Isobel already loaded your gear. We can be there before morning."

"I—"

"Come on, Zed!" Isobel said happily. "We're almost there!" She took his hands and smiled.

He couldn't resist her. Maybe these guys were her cousins. They must be, or why would they be so eager to help? Jealousy was silly; she was his, all his, she'd risked her life, practically, to be with him. Anyway, they were too old for her.

Zed climbed into the back of the truck. He held Isobel close and fell asleep. When he woke just after dawn, the truck had stopped and he was alone. He got out, holding his .22, calling for Isobel. And stopped cold.

A few feet from him stood the alien dome.

It wasn't what he had expected. He'd vaguely imagined his mother's mixing bowl turned upside down, only made of tingling energy instead of ancient plastic. This wasn't clear, wasn't curved, didn't tingle. Opaque and black, it rose straight up into the air taller than all trees; it stretched as far in both directions as he could see. Any curve must be really gradual, which meant the dome enclosed a huge area. When Zed touched it, it felt solid, slick, and hard.

It was real. He was here. He, Zed Larch, touching the alien dome created by beings from the stars.

Isobel exploded into view from the other side of the truck. "Oh, good, you're awake, we have to go now! Right this minute, before the battle!"

Battle? Zed saw no signs of battle, heard nothing but the first morning birds, warning everybody away from their territory, their mates, their insects. Isobel grabbed his hand and pulled him into a run alongside the alien wall. It made an abrupt, sharp turn—whoever had called this a "dome" was crazy—and there stood a serious camp. Large olive-green tents, open-sided lean-tos with wood stoves, an American flag on a tall pole in the middle, guards with guns.

"Earthers," Isobel whispered. "To prevent anyone going in. Be very quiet. We only paid off the night guards. Shhh!"

Three men with guns stood between the camp and the wall. There was no one else in sight. The breeze shifted, carrying to Zed's nostrils a thick, coppery odor.

Gary, Luke, and Dave nodded at the guards. Unsmiling, they stepped aside. Isobel tugged on Zed's hand.

"Wait," he whispered. "Isobel—wait. What's happening?"

"We're going inside!"

"But how . . . who . . . *wait*."

Gary said, "Hey, this isn't really the time to discuss logistics, you know?"

They were hurrying him along, body and mind. Zed didn't like it. He planted his feet apart and talked directly at Isobel. "Who goes inside? All of us?"

"No, no, they're too old—I thought you *knew*. Everybody knows!"

Zed didn't flinch at her tone. Not this time. "You have to be young to go in?"

"Yes, yes—Zed, let me by, I have to stand by the gate!"

All her self-assurance had fled; she was frantic. Zed caught her shoulders and held her. "How do you know what to do?"

"Do you think we're the first? Zed, come on, we have to hurry, before the camp wakes up and stops us!"

"That's what they're here for? To stop us?" He looked over her shoulder at the quiet camp, the guards who had been bribed to break the rules. Birds shrilled. The wind picked up and he caught again the coppery odor.

Gary said, "Shit—they're waking up!"

Zed hadn't seen anything but he let Gary dart past him and lean into the black wall. Isobel yanked Zed around to face the dome. Low to the ground, a square hole opened, no more than three feet tall and three wide. In it, mist swirled. Isobel tore herself from his grasp and dropped to the ground.

Zed caught at her hair. "No, me first—it might be dangerous!"

Isobel hesitated but then said, "Okay."

Zed got down on all fours, still holding his rifle. He couldn't see anything through the mist. Fear blossomed in him like a lily, chalky white, but not as vibrant as his excitement. He was going into an alien dome. He was going with Isobel, whom he would protect. It was really happening.

The mist felt like nothing at all, not even droplets of moisture. He emerged into a perfectly featureless cube of a room, maybe ten feet square. No windows or doors. Nothing. His .22 was gone.

"Hey! My gun!"

All at once he thought he was the stupidest person alive. The aliens had vaporized his rifle. They had vaporized entire *cities*. What was he doing? He had to get out!

Zed bolted back toward the mist, but somehow it had become impassable. Zed beat his fists against it, which was like beating on stone. On the other side of the mist, Isobel screamed.

He thought first that the aliens were hurting her. Then, that the Earther soldiers had grabbed her and her cousins. Finally he realized that her screams were not pain or fear, but fury.

"Let me in too! Let me in, you fucking bastards! I go with Zed! Let me in!"

"Isobel!"

The sound ceased. Zed cried at the ceiling, "Don't hurt her! Don't you dare hurt her!"

"No," the ceiling said back.

A mechanical voice, but it startled Zed so much that for a moment he thought it was the voice of God, answering the prayers his father always directed at the cabin ceiling.

"She is not hurt. But she cannot enter. You may enter."

The far wall dissolved.

Zed blinked. He was on the other side of the wall, and young people stood smiling at him.

"Hi," one of the girls said. "I'm Leah, and this is June and Paul. Welcome to The Resort."

II: Inside

Three ordinary human teenagers, two girls and a boy, dressed in ordinary pants and shirts and leather shoes. Behind them a field stretched to a bright blue sea with the sun rising above it in multi-colored glory. The air smelled of flowers. Zed said, "Let me out!"

Leah frowned. "You just got in."

"I have to go to Isobel."

"Oh." The frown was replaced by compassion. "Your wife?"

Zed looked at them more closely. Not teenagers: older than he thought. Twenties.

maybe. He didn't care. "Girlfriend," he said, aware even now, even here, of a ridiculous little hiccup of pride as he said it. "I have to get back! We were supposed to come in together!"

"If she didn't come in with you," Paul said, "there's a reason for that."

"What reason?" Zed rounded on him, fists half-clenched, almost glad to have a target he could understand.

"Easy, big guy," Paul said. "This isn't a place for fighting."

"I have to go back!"

"Well," Leah said reasonably, "if you really want to do that, you can. But—"

"I can?"

"—first you have to see your mentor. Once, at a minimum. Those are the rules. Then if you want, you can go back. June, who's he assigned to?"

June appeared to stare at something invisible. "C7."

"Okay," Leah said. "Come on, I'll take you. What's your name?"

It was a trap. They wanted to get him away from the wall so he couldn't go back to Isobel. But he couldn't go back to Isobel now. If they wanted him dead, he'd be as gone as his .22. Wouldn't he?

Utterly confused, he said, "Zed Larch."

"This way, Zed."

She led him across the field, toward the ocean. As they got closer, Zed halted to stare. He'd never seen any water bigger than a mountain lake. The Atlantic threw up sparkling whitecaps before it broke on rocks. Seagulls wheeled overhead, crying raucously. The wind smelled of salt and freshness.

Leah waited, smiling, while he took it all in. Her smile stayed even after he planted his feet and stared at her. "No farther till you answer some questions!"

"Sure."

"Can I really leave after I see Seeven?"

"C7. Yes. A few do. Most of us stay."

"Why?"

"We're learning things. Or we like it here. Or we were hurt or sick when we came. Or it's a big adventure. Or we understand what's happening. Pick your reason."

"What is happening?"

"History."

"I want answers!"

"You're getting them."

He raised his hand and gnawed on his fingernails. "How long have *you* been here?"

"Two years."

"What do the aliens do to you?"

"Do? Do you mean do they torture us or brainwash us or force us into hard labor or eat us? Grow up, Zed. If you were a starfaring race with the technology to remake a planet, would you need slaves? Would you want to eat microbe-ridden mammals whose flesh might kill you?"

Zed didn't know what microbes were, but it didn't sound good. God, he was behaving like his father. The last thing he wanted.

"I'm sorry," he said. "I didn't mean to insult you."

"You didn't. Come on, C7 will answer your questions. Or rather, 'The Question.' That's what you really want to ask."

"I—"

"Come on."

Women were always telling him to do something. Leah, Isobel, Mrs. Bellingham, his mother. *Go, come, go.*

They walked a long way along the shoreline to a low white building, gracefully

curved. It blended with the white sand between it and the sea. Behind, dunes rose to woods and fields, where the low buildings were brown or green or gray. A rabbit dashed across the path.

A young woman passed them, walking beside a low cart that floated above the ground. In the cart lay two infants. Zed gaped at the floating cart, the babies, the cart again. The young woman said, "Hi, Leah."

"Hi, Mary. How are the twins?"

"Off to J4. We're late."

She hurried off, the floating cart keeping pace. Zed said, "How—"

"The usual way, of course. Their father is Tim, my brother. Come on inside."

An ordinary room; chairs and a table and wide, open doors facing the sea. Beside the doors, something unordinary.

"Hello," the thing said.

As a child, Zed had gathered stones by the mountain stream. His mother had even paused in her endless chores long enough to tell him the names of the ones she knew: granite and shale and mica and quartz. C7 looked like a thigh-high piece of quartz shot through with mica and then overlaid with patchy slime. The slime was gray and oozy. The quartz was cut into hundreds of precise, diamond-shaped facets like those on his mother's tiny wedding ring.

This had destroyed civilization?

To Leah he whispered, "Is it alive?"

"Sort of. This is his remote. C7, this is Zed Larch."

"Welcome," said a rich, deep voice, nothing like the mechanical one in the wall. "I'm happy to meet you, Zed."

Zed blurted, "What are you?"

Leah looked sideways at him, but C7 merely chuckled. "I look strange to you. I know. You will become accustomed."

"I don't think so," Zed said, so dazed that the words just tumbled out, grain from a ripped sack, without volition or manners.

Leah said, "I'll leave you two."

C7 said, "As Leah said, this is my remote. It is alive, an extension of myself, like an arm would be for you. The rest is aboard our ship in orbit around the moon. What you humans perceive as 'slime' is an organic compound functioning to control moisture levels and pH. Do you understand?"

"No. You're an arm? What if I . . . what if you have an accident? Does the part of you aboard the ship lose an arm? With pain and . . . and armlessness?" He hardly knew what he said.

"Yes. With pain and the equivalent of armlessness. But I know you aren't going to cause me an accident, Zed. Your brain waves were measured when you came through the wall. You are not intending destruction."

"The wall wouldn't let Isobel through!"

"She was so intending."

"That's a lie! We were going to get jobs here, work together! And I'm going back out to her!"

"You are free to do so. But first there's a question you want to ask, isn't there?"

Zed stared steadily at the thing that was an arm, or a rock covered with slime, or a pack of dirty lies. Leah, June, Paul—they could be all brainwashed, in which case the Earthers had been right all along. Maybe Zed himself was already brainwashed. But he just felt like himself. He asked the question.

"Why did you do it?"

"You mean, why did my race destroy Earth's cities and half its population?"

"Yes."

"Everyone who comes here asks the same question, and each receives the same answer. I will show you."

Silently the wide door facing the seashore swung shut, and the room darkened. Zed cried out. The room had disappeared and he stood on a road, but unlike any road he had ever seen: crowded, jammed, dense with people and cars and bicycles and carts pulled by large, strange animals. Buildings crowded him, lights flashed, people shouted in a strange language, smells assaulted his nose. A child fell and the wheels of a cart rolled over him. People screamed. More lights flashed. Sirens sounded. Sudden smoke clogged the air.

"This was a city in 2014," C7 said. "It is Karachi, but it could be any of very many. Here is another."

Karachi disappeared. Before Zed could draw a normal breath, tall buildings—taller than trees, as tall as the sky—dwarfed him. Lights blinked incessantly, red and green and blue and blinding white. People thronged close to him, so that he flinched away, until one walked right through him. Even more cars, trucks, buses, bicycles . . . panic rose in him and he tried to run toward the door. Stopped himself. It wasn't real. It was an illusion, like a picture in a book. . . .

"New York in 2014," C7 said. "Stay still, Zed. This is New York as it would have been in 2050, if it still existed."

Howling winds knocked Zed off his feet. He lay on the floor as wind and rain pelted him. Buildings sagged and one collapsed. Through the bars of a cellar window he saw a woman's face looking at him, nothing but skin stretched over skull, her eyes sunken, her hair patchy. Zed had found deer with that look, starving after a hard winter. Another building toppled.

"Superstorms," C7 said, "the result of climate change. In 2014 the United States had nine hurricanes and one superstorm. By 2050, twenty 'class-one' hurricanes and ten superstorms, which raged over huge areas at once. This is Seattle."

The same, with fewer buildings left, muddy hills sliding into the sea.

"Wichita."

Almost nothing left but the ceaseless, howling winds over dusty ground.

"The Atlantic Ocean, right here on this beach, by 2070."

Masses of floating garbage, between them greenish algae as far as the eye could see, growth so out of hand that everything underneath was dead. A little boy picked his way through the garbage. He looked as skeletal as the woman in the New York basement, his body bent almost double against the wind. Oozing sores covered his nearly naked body.

"The child's illness," C7 said, "is the result of biowarfare. Now here is New York again, in the year 2200."

The winds had ceased. There were no people, no buildings. Only jungle, plant life thicker than Zed could have imagined, as thick as dirt covering a grave. No animals moved in that thickness; no birds flew. Zed gasped, his lungs burning, he couldn't breathe—

"Carbon dioxide levels up over 3 percent," C7 said. "No mammals left. That future—humanity's future without intervention—is why we did it. For the common good."

The jungle vanished, and Zed was back in the white room with its doors opened to the clean salt air off the Atlantic.

"Not genocide, Zed. Rescue. Sit down, you are hyperventilating."

Zed collapsed into a chair. In the midst of stunned wonder, of anger and fear, he found his question. "Why should I believe you?"

"Because it is the truth."

"I don't know that! Are you saying you could see the future?"

"No. That was a simulation, of course, but based on totally accurate data. No one can see the future. Our problem with humanity is that you do not even try."

"That's not so!"

"Yes, it is. You look no farther ahead than your own short lives. Sometimes, but not often, you consider those of your children. No farther. You want energy and objects and profits so you take them, regardless of the long-term consequences to yourselves, your descendants, your planet."

"So why is that *your* problem?"

"I cannot tell you that yet."

"How do I know you're not just lying? Making up a story to excuse yourself for what you did?"

"You don't know. I cannot go into your skull and make you believe. But if you stay here, you will learn some of the science that the predictions are based on. Good science leads to good far-seeing."

"I don't know enough to even know if the science you'd give me is lies!"

C7 was silent. Mica flecks flickered inside quartz. Finally it said, "No human has ever said that to us before. In the admission of ignorance lies the start of far-seeing. I very much hope you will stay, Zed. . . ."

"Then let Isobel in, too!"

"No."

Zed put his face into his hands, immediately removed it. If he had shown such weakness with his father, there would have been a beating with the belt.

C7 was not his father.

Zed fought for calm. Eventually he managed, "If what you say is true, then why didn't you just *warn* Earth in 2014? Show those . . . shows of the future, way back then?"

"We did. The United Nations in New York was beamed everything you just saw, plus more. No one believed us. They had not believed humans telling them the same thing, your own scientists, for at least forty years."

"So you wiped out all the cities and just took off in your ship."

"We went home to wait."

"For *what*, for fucking sake?"

"For you. Your generation. We thought that in two or three generations, the survivors—and we knew you would survive; humanity is among the toughest races we know—would understand why we acted as we did. Or, if you did not understand, that the generation who experienced 'June 30th, would mostly be dead, and the new one willing to listen to us. Our knowledge of your history showed us many alliances with former enemies, some of whom had caused just as much local destruction and with much more cruelty." C7 gave something that, if it had been human, would have been a sigh. "We were wrong. The people of Earth did not behave with us as you have with others in the past. And it seems that there is one area of behavior where you do practice far-seeing.

"Revenge."

Zed stayed.

Every day he asked himself why. Not for the science, which was too hard for him. Or maybe he just wasn't interested enough. He listened to C7 or J3 or D1—they all looked alike to Zed, although Leah and Paul and Ruhan could tell them apart—and even during the simulations, three-dimensional and immersing, his thoughts would wander. His mind, imaginative but not analytical, left carbon-dioxide levels or cellular biology or Moore's Law for what did interest him: The Question, or rather The Questions.

Was it right to kill half the human race in order to save the other half?

Was it right to break into a civilization, like an outlaw stealing cities, in order to force that civilization to slow down its technology before its own tech destroyed it?

Was it right to live comfortably side-by-side with beings that had done that?

The others were not disturbed by The Questions. Leah, gentle and frighteningly intelligent, thought that the aliens had made the ethical choice. She thought that and then forgot it, absorbed by the aliens' versions of computers.

Her brother Tim—over thirty, and hadn't Isobel told Zed that only young people could enter the dome?—was absorbed in algae. He spent much of his time knee-deep in the ocean, experimenting with different sorts of algae that could be converted to nanocellulose, a "super material" he said would save the world.

June, tall and gravelly voiced, worked with D5 to learn how to cure the human body of the copying errors that were cancer.

Ruhan became Zed's best friend. They had nothing whatsoever in common. Chinese-American, Ruhan was small and skinny. No amount of food could fill him up, and no amount of knowledge. He studied physics alone with J3 because none of the other humans could keep up with him. But unlike Zed's other friends, Ruhan did not want to talk about what he was learning. To him it was as private and intense as sex. He was, however, the only one who would talk to Zed about The Questions. Ruhan agreed with Leah, but not as comfortably. He had read a lot of ethics; people Zed had never heard of: David Hume, Friedrich Nietzsche, Immanuel Kant. Most of what Ruhan said was either incomprehensible or disturbing, but Zed was nonetheless fascinated.

"None of them," Ruhan said, "really incorporated far-seeing into their philosophies."

"Is the right thing different if you look way ahead than if you look only to . . . to . . ."

"To the immediate consequences," Ruhan said. He often supplied words that Zed fumbled toward but couldn't quite locate.

"Yeah."

"I don't know," Ruhan said. "It's an important question."

No one, not in his entire life, had ever thought Zed's questions important. Not even Isobel. He worried that this thought was disloyal to her. He worried that he was happy to have friends, that he wasn't thinking hard enough about all the death and sorrow the aliens had caused. He worried that he wasn't smart enough to ever understand anything. He worried that he spent too much time worrying.

The one hundred seventeen people, all young, called the alien dome "The Resort." The low, gray or green buildings were "dorms," where each had a tiny sleeping cubicle, just as each alien had a low white building scattered around The Resort. The humans were fed communally from food grown either in big wettish tanks or in gardens they themselves worked. Anybody who got sick went to D5 and was cured. They studied and experimented and swam and made love. They were working fervently, Leah told him, "for the common good."

Six of the one hundred seventeen were babies born inside The Resort. J4 watched the babies in a big play area every day, as their mothers worked or studied nearby. J4, unlike the others, had grown a pair of creepy, skin-covered tentacles. She (impossible for Zed to think of J4 as other than female, although Leah reprimanded him for sexism, a term he'd never heard before) played with the babies. She changed their diapers. She rocked them to sleep. She talked to them, sometimes in English and sometimes in a trilling, bird-like language.

Tim's wife Anna said, "It's like having Mary Poppins for the twins."

Zed, who didn't know who Mary Poppins was, said, "It's like having someone make sure your kids grow up trusting the aliens."

"Of course," Anna said, giving him a strange look. "The kids will be cultural attachés. Interspecies bridges."

Zed shut up. He'd never heard the word "attaché," and there was nothing he could

say that the others hadn't already thought of. He was a big dumb bear from the woods.

But—

Cities disappearing in an instant, everyone in them dead. Gone, just gone. Murdered.

But—

If the aliens hadn't stepped in?

Around and around, and nothing ever decided. Too hard. Too critical.

The heart of everything here.

At night, he dreamed. Paris, as he'd seen it in C7's history holos, wide stone squares filled with a thousand Parisian faces, which Zed imagined as smaller and prettier than American faces. Simultaneously the thousand faces tilted upward to look at the sky, blinked, and vanished forever.

"No, no," Ruhan said. "The t-test is for significance of the correlation, don't you see? The confidence level means—"

"I don't see," Zed said miserably. "It's hard."

Ruhan, for whom this math was as easy as breathing, gazed at Zed with the same incomprehension that Zed gazed at his "homework."

The boys sat at a crude wooden table, in the shade of a gazebo built only yesterday by a group calling themselves "the carpenter team." Now the team was constructing another gazebo closer to the water's edge, a hundred yards away. Sawing and hammering filled the air. Zed longed to join them. He had worked on this gazebo, which smelled of raw wood and salt air. The carpenter group shouted and laughed.

"See," Ruhan said, trying again, "you start with two samples that each have a p-value above 0.05—"

"I can't get it! Why does C7 want me to study this stuff? I'm too dumb!"

"You're not dumb," Ruhan said, without conviction. "You think about things."

This was true, although none of the things were math. Zed looked despairingly at the flat rectangular "link" that C7 had given him, which he was supposed to keep with him at all times. He said abruptly to Ruhan, "You entered The Resort last year, right? Was the Earther camp outside the entry point then? The soldiers trying to stop people from going in?"

Ruhan's thin, bony face wrinkled. "It's not an Earther camp. Who told you that? The camp is on guard against Earthers, to make sure whoever wants to come Inside, can. They also keep known Earthers from more stupid attacks on the wall."

Isobel and her "cousins" kept out, not because they were too old, but because of the aliens' brain-scan filter blocking anyone intending destruction. The coppery smell thick on the air—blood? Whose? Why? Were Gary and Luke and Dave known Earthers, and had they killed people to clear their way to the wall, so that Isobel could attack from inside? But that would mean Isobel was an Earther, too, with big, obedient, dumb Zed as her protector . . . Isobel, who had driven him out of her parents' house with her hurt back, which never seemed to ache again. . . .

No. She had not used him like that. Zed killed the thought before it could take full root. He waved at the ocean, blue and calm. "If the soldiers wanted to attack, why don't they just sail around the edge of the wall and attack from the sea?"

"An energy barrier there, too. It was even tried by some reconstituted military someplace, last year. The energy barrier uses radiation that—"

Zed didn't listen. Ruhan's explanation got more and more complicated: dark energy, subatomic particles, something called gravitons. Zed held the link with the hopeless t-test problems and watched the carpenter team carry something toward them.

"Okay, our turn at the shade and table," said a dark-haired girl with muscled arms

and a long scar running down one cheek into the left side of her upper lip. Her name was Delia, and Zed didn't like her. "We've worked harder than you guys."

"Hey," Ruhan said, "cool! Who made this?"

"Joe, of course," Delia said. "He's the carver."

Joe, a black man almost as big as Zed, carried a flat piece of wood with alternating light and dark squares. On it were thirty-two carved bits of wood. Joe put them down on the table and the dark-haired girl began to line them up.

Zed said, "What is it?"

Delia sneered. "You're teasing, right?"

Ruhan, the only one who knew about Zed's past, said gently, "It's a game. Chess."

Delia said to him, "Do you play?"

Ruhan said, "Badly."

"Well, nobody else will play me at all. Let's have a game."

"If I can explain the moves to Zed while we play."

She shrugged. "I don't care. You won't distract me. Or beat me."

He didn't. Everyone else drifted off. Zed watched, enthralled. After five minutes he didn't have to think about how the pieces each moved. The game made *patterns*. After ten minutes, he could see them. When Delia won, Zed said, "Again. Please."

Ruhan looked at him oddly. "I have things to do, Zed. And you're supposed to do those t-test problems."

Delia said, "I'll play you, Zed." There was an unpleasant quirk in the unscarred side of her mouth. She expected to crush him as she'd crushed Ruhan, and savored the prospect.

She won three games. By the end of the third one, the sun was low over the dome wall to the west, and the look in Delia's eyes had changed to grudging respect.

"You're a natural."

Zed said, "It's all patterns. Like . . . I don't know like what. Like a dance."

She swept the pieces into a cloth bag. "Grandmasters think like that. But you're no grandmaster."

The link C7 had given him, with the forgotten t-test problems, suddenly shrilled. Zed jumped; Delia didn't. C7's voice said, "Zed, may I see you now?"

He was in trouble for not doing his homework. Zed got heavily to his feet. Delia smiled nastily. Zed trudged toward C7's building, carrying the link. Would he be punished? How?

C7, sparkly and slimy and unreadable, said, "So you have an aptitude for chess."

"How did you know I—"

"You will not do any more math or physics or history, Zed. You will play chess."

Zed gaped at him.

"Far-seeing is the manipulation of data to create high-probability predictions. But the predictions themselves are only recognitions of existing patterns. Usually such predictions are arrived at through logic and mathematics, but some people can do so instinctively. Savants, they were once called.

"First, you will play chess."

He played on a different link, which C7 gave him. When he had won five games in a row, the machine made the game harder. Zed didn't know how it did that and didn't care, although Ruhan was fascinated. Zed also played Delia, but the third time he beat her, she overturned the board and stalked off.

Zed played chess all day, every day, until his big body could no longer stand to sit still. Then he must join the carpenter team, or run for the entire three miles of beach front, over hard-packed sand and water-broken pebbles, around the occasional boulder jutting from the water. Seagulls, sandpipers, rabbits from the woods, fishing teams in small rowboats off shore. No large ships, ever.

But his dreams were not of chess. He dreamed of Karachi as C7 had shown it to Zed on Zed's first day at The Resort: streets jammed with people and cars and bicycles and carts and strange humped animals. Smells and smoke and noise. Then all at once, silence. Nothing. Gone.

One dusk, C7 summoned him. "Tomorrow we begin to look at far-seeing data in patterns, not algorithms."

"I don't understand," Zed said. Despite the healthy food, he was losing weight.

"Data can be considered in packets, like chess pieces. Patterns. I don't know if you have this ability, but—"

"Do you have it?" The question came out blunter than he intended. C7 did not seem to notice.

"Some of us do."

"How do you know so much about human brains? When we intend destruction, the ways we play chess, how our math works?"

"Tomorrow morning we will begin far-seeing with patterns."

Zed planted his feet apart. "Tomorrow morning is Tim's big breakfast with the algae stuff. That he's been working on. The . . . the stuff." Zed had paid scant attention to Leah's happy chatter, or to anyone's.

"Yes. It is. I will see you after the breakfast."

Why didn't he want to study far-seeing patterns? Zed couldn't have said. He just knew he didn't want to. C7 knew more about Zed's brain than Zed did.

"I will see you tomorrow," C7 said. "This is important."

"Okay," Zed said.

He dreamed of New York as his history lessons had shown it to him, ships going in and out of the harbor, buildings piercing the sky, nine million people hurrying and working and loving and creating and killing each other. An incandescent glow, somehow serene, and all that was left was bare and silent ground.

Tim, brother to gentle Leah, hosted the breakfast, which took place at the new sea-side gazebo. The ocean whispered rhythmically on the sand. All 117 humans attended. The mothers had brought their children, who slept or nursed or chased seagulls. No aliens were present, but Zed knew they were watching. They were always watching.

Men and women sat on the grass around the gazebo, the remains of their breakfast on plates beside them. Fish, vat-grown rice, a new and spicy algae, sweet berries. Zed sat at the far edge of the circle, between Ruhan and Leah. She said, "Zed, you look . . . so tired."

"You look terrible," Ruhan said, more frankly. "Bagsy eyes. Too much chess?"

"That's it," Zed said. It wasn't.

Leah said, "Maybe you should—oh, Tim's going to start."

Tim and the algae team, dubbed the Goop Guys, placed four boxes on the table under the gazebo. The boxes were made of some alien stuff, smooth white cubes used everywhere in the camp for storage, carrying, and—if turned upside down—portable stools. They were lightweight but indestructible. Everyone quieted expectantly. The Goop Guys, two men and two women, beamed like sunrays.

Tim said, "As you know, we've been working with different strains of algae and bacteria to create nanocellulose. Cellulose is the wall of plant cells, including algae—forgive me if I'm telling you things you already know!—and it's the most abundant long-chain molecule on Earth. We already eat some kinds of algae as well as grow other nutrients on it in the vats. But by combining it with the right kind of bacteria and other chemicals, we have got the algae to manufacture nanocellulose, and then we've made it into this."

From one of the boxes Tim lifted a thin, faintly green sheet of thin material. It rip-

pled in the slight breeze from the ocean. He said, "It's very strong, it can be layered to make *this*."

From the second box a woman pulled a skirt made of sheets of the thin green material. She put it on over her shorts. Everyone applauded and a child cried, "Pretty!"

Tim beamed. "More layers and some biological tweaks, and you get *this*."

The other man, whose name, Zed suddenly remembered, was Jon, pulled a stiff piece of faintly green board from the third box. Dramatically he tried to break it in two. It didn't even bend. He held it high over his head and said, "Building material!"

The second woman, no older than Zed, couldn't wait for Tim. She shouted, "And look at this!" From the last box she pulled a bottle of darker green liquid and what looked like an ancient lawn-mower engine, so heavy she could barely lift it. Jon helped her. When it was on the ground, she poured the green liquid into the tank and pulled a long cord. The engine sputtered, then caught and roared into life. Over the noise the girl yelled, "Biofuel! With no carbon emissions and biodegradable waste products!" She burst into tears.

Zed watched, both a part of the jubilation and outside of it. He understood that the Goop Guys, the aliens, everyone in The Resort, were trying to remake the world, one tiny advance at a time. Or maybe they weren't tiny advances. Civilization, pretty much stalled since June 30th, could use these safer, cleaner, better things to move forward again. But—civilization was so *big*. The world was so big. Whole countries were re-establishing the old ways of mining, drilling, manufacturing—Ruhan had told him so. Could these new ideas really change anything?

And if they did, was that enough justification for—

"Zed," Delia said. She'd come up behind him without him hearing her. For once her face, with its long, disfiguring, never-explained scar, was without sarcasm or slyness. "C7 wants you in the Residence."

"Why?"

"I don't know. He called me on my link, since you don't have yours with you. Again. I'm supposed to go with you."

Zed got to his feet. People crowded around the gazebo or picked up breakfast dishes or started back to the cabins. The distance to C7's building, which Zed now knew was the alien command center, seemed long. Zed's stomach clenched, although he couldn't have said why.

C7 looked the same as always, a glittery cylinder patchy with slime. He said, "Hello, Zed. You have a decision to make."

"A decision? What?"

C7 hesitated. Zed had never seen it do that before. Then it said, "Your mother is outside the gate. She wants to come in."

The words didn't make sense. "Who?"

"Your mother."

"That's . . . not possible."

"Certainly it is not usual. Nor would we normally consider such a request. Look."

One wall brightened, not into the usual three-dimensional and multisensory holos but merely into a flat screen. Zed's mother, flanked by Isobel and Gary, stood beside the dome wall. Zed's mother said, "I want to see my son. Please. Let me inside."

She looked terrible. Thin, haggard, leaning on Isobel's shoulder. Zed's knees trembled.

Delia demanded, "Why her? You never let in relatives of people who want to see us! Why is Zed different?"

C7 didn't answer. Zed finally got out, "Can I—can she—"

"You may go out to her, as can anyone who wishes to see relatives. Delia, you know that. But the few who have done that have then been taken away by those relatives by force. We were very sorry to lose them, and so we have changed our policy. Your

mother may come into the wall chamber to see you, but no farther. It is natural that she should be concerned for her child."

Zed's mind skittered in three directions at once: Did he want to see his mother? Would Isobel come into the wall chamber with her? And if C7 thought it was natural for a mother to want to see her child, did that mean that it too had a mother—that the aliens lived in families? They had always refused to discuss themselves. Was this a clue?

Was this a trap, set by Isobel to get inside?

Did Zed—

"What is your decision?" C7 said. "Shall I let her into the chamber wall?"

His mother's image on the screen said, "Please, Zed. I'm dying."

Zed said, "Yes."

"Delia will accompany you."

Why? In case his mother, frail and old and as near to tears as Zed himself, had become an Earther and tried to overpower him? Zed didn't ask.

The walk to the gate felt disorienting; Zed had not been to the south end of The Resort since he'd arrived—how long ago? Two months. Only two months. Suddenly, with a sickening jolt, Zed realized that June 30th had come and gone without his even noticing. *June 30th*. How was that possible?

Delia said nothing on the mile-long walk. When they reached the wall, a small section of its surface dissolved and Zed and Delia walked into the featureless chamber. After the wall had closed behind them, the tunnel opened and his mother crawled through on her hands and knees. "Let me in, too, you bastards!" Isobel shouted, unseen. "She needs me!"

Isobel's yelling ceased and Zed helped his mother to her feet. He could feel her bones through her thin shirt, sharp as chisels. She sagged against him in what, he realized with somehow remote astonishment, was a *hug*. He could not remember her ever hugging him before.

"Zed, Zed, Zed . . ." His name might have been a prayer.

"Mother . . ." He wished Delia were not there, or at least that she would turn her back. "Are you all right?"

"Yes. They—Isobel—take good care of me."

"Why did you come? You're . . . not well—why did you come? How did you know where I am?"

"Isobel found me. A few days after your father died."

"Father is dead?" He couldn't imagine it. That angry, mean, vital force had seemed as eternal as the mountain where he'd barricaded himself.

"An accident out hunting. He didn't come home and I went looking for him and found his body in the woods. I couldn't even lift it, but then Isobel and her cousins came and helped me bury him. She came looking for us, to tell us where you were. She said she knew how a mother would grieve for her only child who disappeared."

Isobel? Who Mrs. Bellingham had seemed to loathe?

"She's so good," Zed's mother said. "I got sick and she took care of me. I'm not well—I won't ever be well again—but when I could travel she and her cousins brought me here on a *truck*. To see you."

A last effort to get inside the wall. Zed didn't say it aloud. The sight of his mother moved and confused him. Wispy, insubstantial, as if the shadow of his father, in which she'd lived for all of Zed's life, had been the only thing lending her substance.

She said, "I need . . . to sit down."

He eased her to the floor and sat beside her. Delia remained lounging against the blank wall, watching. Zed said, "What . . . what are you going to do?"

"Will you come back out and take care of me?"

It was said as simply as a child. Zed's throat thickened.

"I can't."

His mother nodded, as if this was no more than she expected, or deserved. "Then Isobel will. She sent you this." From her pants pocket she drew a folded piece of paper. Zed took it without opening it.

"Zed, are you all right? The aliens haven't . . . hurt you?"

"No. I'm fine."

"They pay you well enough for your work?"

She had no idea what The Resort was and, Zed realized, she wouldn't understand if he told her. She wouldn't even be interested. This visit to find him was her last flicker of interest in pretty much anything. She had no concern for any possible future.

You look no farther ahead than your own short lives, C7 had said.

Zed said, "Yes. They pay me well."

Neither of them could think of anything else to say.

Finally Zed said, "Tell me when you want to go back out."

"Now, I guess."

Delia said to the air, "She's going out now, C7."

The mechanical voice, so unlike C7's rich and deep bass, said, "Does Zed go with her?"

Delia looked at him. Zed twitched, as if an electric current had burned him. Delia said to the air, "No."

His mother made no last-minute plea, no tearful good-byes. Spent, she merely received Zed's kiss and crawled painfully back through the wall. Again Isobel's voice, this time pleading instead of shouting: "Please, Zed, come out to see me, or let me come in, I miss you so much, I love you—"

On the walk back to the dorm, past the fields and picking their way across the pebbly beach smelling of salt, Delia finally said, "Is she beautiful?"

"Yes," Zed said. Delia touched her scar, a gesture she seemed to immediately regret, and said nothing more.

"Far-seeing is a game," C7 said.

"A game?" Zed stared at the alien-thing. He had not slept well last night. Dreams of his mother had mingled with one of Washington, D.C., disappearing silently and forever.

"Yes. Not because it is trivial, but because it possesses the same properties as, say, chess."

"A game." Fifty-one percent of Earth's population destroyed.

"A game must have three properties. First, a clear goal. Second, there must be rules. Third, the easiest way to accomplish something is not allowed. If, for instance, the goal is to capture the opposing king, you may not simply grab it off the chessboard and run away with it. Nor shoot the football over the goalpost with a cannon. Sit down, Zed. You are so large standing up."

Zed sat cross-legged on the floor, ignoring the wooden chair the Carpenter Team had made. His head was at the same height as the top of C7. Zed watched the pattern of lights on the diamond-like facets under the patchy slime. He said, "What is the goal of far-seeing?"

"To find the probable pattern of the future, in order that action may be taken to either advance or prevent it."

Karachi disappearing, London, Shanghai, New York . . . Zed had memorized hundreds of city names, from Karachi to Sturbridge.

C7 said, "The rules are those that govern human behavior, ecology, and physics."

One example of such a rule: in any group, 20 percent of humans determine the customs that the other 80 percent eventually adopt. We will not study these rules in words or mathematics, since it's clear that you do not think that way.

"So what will we do?"

"You will do two things. You will play chess against your link, a great deal of chess. Also, you will come here four times a day, for an hour each time, to experience holo simulations. Eventually, your mind will integrate the pattern-spotting ability of good chess players and the information in the simulations. This will happen below the level of awareness. Your particular mind is associative, not linear, to an unusual degree. Sleep will greatly help the integration. Let us begin."

"C7," Zed said slowly, "how do you know so much about how my mind works, since you are not human?"

"Let us begin," C7 said again. His inflection did not change. The room disappeared around Zed as the first holo sprang to life.

It *felt* like life. Two women haggling in a village open-air market over how many vegetables to trade for a hand-sewn child's shirt. Zed could see the women, hear them (although not understand their language), smell the peppers and pumpkins. The holo vanished, to be replaced by another.

A wolf, bringing down and devouring a rabbit.

Children chasing each other in summer twilight.

Smokestacks pouring gray particles into the air.

A map of what Zed recognized as the United States, covered with raging storms. Then another, covered with deserts.

People trekking wearily a long, long way for a drink of fresh water.

Fresh water cascading from a mountain spring.

Bombs falling on a city, with buildings and cars and people exploding into flames.

Women cooking over a fire in the center of a ring of round huts.

People riding bicycles along green-lined paths.

Coal burning in a fireplace, the walls of the cabin black with soot.

On and on, until Zed's head shivered with images. But it did not occur to him to stand and walk out.

Finally C7 stopped. The sudden bareness and silence were shocking. "Now go sleep. When you wake, play chess. At sunset, come back here for more."

Zed stumbled from the room. In the pocket of his pants, the same ones he'd worn when he arrived, Isobel's note lay folded small and hard as a chip of coal. Like coal, it felt to his fingers as if it could ignite and blaze.

Delia waited outside, Ruhan beside her. The air between them shimmered with dislike, but they were both there. "Hey, are you all right?" Ruhan said.

"Yes," Zed said. And then, for reasons he could not have articulated, "I need to be alone."

Ruhan looked offended. Delia did not. The breeze blew softly from the ocean, and the waves moved ceaselessly on the sand.

Zed played chess. He experienced simulations. He slept, much more than he had slept since he was very small. He went for long walks alone, and afterward could not remember anything he had thought about while walking. He slept with Leah, who seduced him, and it was not anywhere as heart-racing as it had been with Isobel.

A simulation of a house being built, the construction workers all cooperating.

Ground split open by fracking, and an entire village slowly disappearing into the sinkhole.

Two young people holding hands, kissing, starting to undress together.

A vast and perfect lawn, smelling of freshly cut grass and spicy flowers.

Garbage, enormous mounds of it, drifting on the sea.

Rabbits, eating a vegetable patch clear down to the ground.

A house made of what looked like Tim's nanocellulose, green and low and beautiful.

Happy children, dark faces and bright clothing, singing a song.

"Some configurations of actions," C7 said, "lead to disaster, even though each action in itself is harmless, even beneficial. This is true in both chess and far-seeing."

Zed said nothing. He almost never beat his link at a game of chess. When he did, it brought him no pleasure.

He dreamed of the mountain where his father had built their cabin. In his dream the entire mountain disappeared in a silent burst of light.

A holo, which might have taken the shape of a church, blinked off a second after Zed glimpsed it. Jamie, a member of the Goop Guys, stood in the door of the Residence. "C7, some new people are at the gate, wanting entrance."

C7 swiveled its cylindrical body slightly. The small screen, its flatness dull after the holos, appeared on the wall. Two boys stood there, no more than nine or ten, holding hands. They looked terrified. Isobel and Gary hovered behind them. At the sight of her, something bloomed in Zed's chest. She might have been only using him to try to get inside the wall, but nonetheless he wanted to touch her in the same unreasoning way he wanted food, water, sleep. *Primitive Boy.*

"Can we come in?" said the slightly taller of the two boys. He scowled.

"It's a ploy," Jamie said. "They're too young to either make up their own minds or to be of any use here."

C7 said, "Sometimes it's hard to know what will be of use." A pattern of light flashed on its body and a small square of wall below the screen lit up briefly. Now that he was looking closely, Zed could see that the wall, from just below the screen to the floor, was almost imperceptibly marked with a grid of small squares, each no more than an inch on each side.

On the screen, the smaller child gasped and clutched the other. The wall must be opening.

Isobel and Gary darted forward and met with the barrier. Gary began cursing. Isobel put her hand on the shoulder of the smaller child. "He can't go in without me! I take care of these children! You have to let me come in with them!"

The older boy started forward, dragging the younger away from Isobel. On the older boy's thin, pinched little face shone determination. The younger looked about to cry, but he followed. They dropped to their knees and began to crawl through the opening, their faces growing larger on the screen.

"No!" Isobel called, grabbing the younger and hauling him back.

Quicker than Zed would have thought possible, the older boy backed through the opening, whirled to face Isobel, and drew a long, wicked knife. It flashed in the sunlight as he lunged at her. She screamed and let go of the younger child. Gary started forward as the older boy yelled, "Pete! Go!" and the younger, short enough to not need to crawl, ducked his head and scooted through the mist. The older, brandishing his knife, followed, and then the wall screen shifted to show them both in the featureless chamber Zed remembered so well.

Jamie said, "C7, you can't let them in! He's violent! Why did the barrier even let him cross?"

C7 said, "I overrode the amygdala scans. The child is only violent in protecting his brother, I think. He has determination. Besides, what harm can the boy do in here? He will not bring his knife."

What harm can the boy do in here? The words echoed in Zed's brain, for all the

world as if they'd been bounced off the mountain he used to live on. *What harm can the boy do in here?*

Jamie scowled but said no more. Zed was surprised she'd said that much. Zed never told C7 what to do. Not because C7 seemed to be the leader of the aliens, not because C7 was Zed's teacher, not because Zed had been raised to not answer back to his father. Some other, unfathomable reason.

C7 said, "Jamie, take Leah and go meet the children. Bring them to J4."

"They're too old for the nursery," Jamie said, but she left. C7 turned back to Zed. The interrupted holo reappeared—it *was* a church. Others followed. As always, Zed did not try to think about them but merely let his brain absorb the images. As always, the effort exhausted him. Why should that be? Experiencing holos, playing chess—none of it should be anywhere near as tiring as clearing rocks from tiny upland meadows, planting, weeding, harvesting, chopping wood, butchering chickens, fetching water. But it was.

What harm can the boy do in here?

The computer team, who called themselves the Wave Wonders, had a breakthrough in their work. Zed did not understand it. He understood, with some difficulty, that computers Outside were connected to each other through "servers" on "the internet." He also understood that the computers Inside could not join the internet or they might be "hacked." The computers Inside had started, Ruhan told him, with decrepit and mostly non-functioning laptops brought in by some of the first humans to enter The Resort. These had been supplemented and then replaced with new technology partly given by the aliens and partly developed Inside. Zed gathered that it used a different kind of design, a different way of talking to each other, and none of it required electricity but was powered by "fuel cells." That was all he understood, and eventually Ruhan gave up trying to explain it to him.

Ruhan said instead, "So how are the private lessons going? With C7?"

They sat on a huge rock a few feet from shore. The day was cloudy and the sea choppy. Occasionally waves washed up the side of the rock and over Zed's bare, extended feet. His mouth was filled with cake made of honey and rice and algae.

"Mmmfff."

"Going that well, huh? Zed, what is C7 teaching you to do? There's a lot of speculation."

Zed swallowed. "To far-see."

Ruhan gave a low whistle. Zed, who could not seem to learn to whistle, felt a silly stab of envy. "And can you far-see yet?"

"No. Look at that big fish out there!"

"Big, all right." Ruhan shot him a complicated look.

Zed was uncomfortably aware that he had not been entirely truthful. He could not far-see, not really, but sometimes he had flashes of . . . something. Images would suddenly click into place in his brain and he would see connections among them, configurations like those in chess, as if the future were a vast chessboard with a vast number of squares and a game had already started. There were so many possible ways the game could go, and yet only one most likely outcome, lost in the thousands of patterns the images suggested. No, not really lost, it was *there*. Somewhere. And he didn't really "see" the patterns, either—it was more like he *felt* them, palpable rocks in a field he was clearing. Or something.

Since none of this could be explained to Ruhan, or even to himself, Zed didn't try. This was why he saw so little of Ruhan, of Leah, of Delia and June and Paul, these days. He didn't belong, not anywhere. But, then, when had he ever belonged? He was

relieved to see Ethan and his little brother, Peter, climbing over the rocks toward them. A distraction.

Ethan had not threatened anyone with a knife in the month that he had been Inside, nor caused any other harm. Neither had he made any friends. J4 had set the boys to tending the goat herd, and they did that well enough. With good food, Ethan had filled out a little. Peter had not. Peter never spoke, never left his brother's side, never looked less frightened than when he'd arrived.

Ethan said, "This is *our* place. You go."

Ruhan frowned. Zed said, "We were just leaving anyway."

On shore, Ruhan said, "You shouldn't let him talk to us that way. That's not how we treat each other Inside."

Zed said, "Ruhan, why did you come Inside?"

Ruhan stopped walking. "You never asked me that before. Not in all these months."

"Why?"

"I wanted to."

"Yes. So your parents brought you here because it was a great opportunity and one girl had already left but said that no one was harmed Inside and the aliens were teaching advanced science and so your family decided all together that it would be okay."

"If you already heard my story from somebody else," Ruhan said irritably, "why did you ask?"

"Because Ethan and Peter didn't get brought here by a family in order to learn physics. Those kids have been beaten and hurt and they're escaping. Inside might kill them, but that was better than what they had Outside."

"How do you know all that? Did Ethan talk to you?"

"No."

"Then how do you know?"

Zed said, "I looked at them."

Ruhan, the young scientist, persisted. "But how do you know the—"

"I just *do*. Let's not talk anymore."

Ruhan was offended. Zed didn't know how to make it right between them. They parted in confusion and unhappiness.

That night, alone on the beach under a cold sky—it was late September—Zed finally opened Isobel's note from months ago. In the moonlight he could just make out her blocky, all-capitals handwriting, written so hard in black ink that the letters nearly went through the paper.

ASK THE ALIENS IF THEY WOULD DO JUNE 30th AGAIN. IF THEY WILL DESTROY AGAIN IF WE GET LIKE WE WERE, AGAIN.

Dawn. Zed fell into a restless sleep just as the rest of his dorm was waking. No one disturbed him. Nor did they walk or talk any more quietly than usual beyond the thin walls of his cubicle. All of them had their own projects to go to. Goop Guys, carpenter team, Wave Wonders, bread baking and rice-vat tending and lessons in the physics and biology and ecology that were supposed to create a better world.

Zed slept again. Just before he woke, he dreamed: not of Karachi or New York or Beijing or Los Angeles vaporized, not this time. Instead he dreamed of Ethan and Peter. They stood in the middle of a street that was so featureless that, although it had shadowy shapes of buildings and other people, everything was so blurry that this could be any large city, anywhere. Only the two boys stood out clearly, every detail of their faces clear as water from a mountain spring. Ethan scowled. Peter turned his head and clutched at his brother. Something large was running toward them, some-

one with a stick to beat them with. Ethan turned his head again, to look straight into Zed's sleeping eyes. Then, silently and in a burst of light, the boys were vaporized.

Zed woke, sweating, clutching at the blanket. Not a city gone, not many cities gone. Only two lives, real and individual and separate as pebbles on the beach.

And then it happened, just as C7 had said it would, after sleep. The vague configurations superimposed in messy semi-patterns in his mind—they all resolved. The sensation was as distinct as the click of a door opening, or the checkmate move in chess. Clear, inevitable, final. Zed was far-seeing.

He threw on his clothes and went outside. Autumn sunlight streamed down, mellow and golden. A sweet salty breeze blew in from the sea. He walked along the path, gravel and sand, toward C7's building. If C7 had called him on his link, Zed didn't know it. He'd left the link on the beach at midnight, weighting down Isobel's note.

C7 said, "Good morning, Zed. You are late. What is that for?"

"Yes," Zed said. He raised the pickax he'd taken from the carpenter team's tool shed and brought it down hard on C7. The remote's words from last June rang in his mind: *"It is alive, an extension of myself, like an arm would be for you . . . pain and the equivalent of armlessness."*

The remote shattered. Without a second's hesitation, Zed ran to the section of wall that brightened whenever the screen appeared, and brought the pickax down in the grid of tiny squares beneath it. The screen leapt into life to show the dome wall just as Zed's savage blows destroyed the machinery that maintained it. On the screen, the high, dark wall around The Resort disappeared. Like Karachi, like New York, like Beijing.

Only it wasn't cities that had disappeared. He knew that now, knew it through to his marrow. It was individual lives—gone, along with all they might have been. Again and again he swung the pickax, the wall much easier to destroy than he'd expected. He was smashing the smashers of the world, smashing the shadowy person who had beaten Ethan and Peter, smashing his own father. *What harm can the boy do in here?*

Screams outside. No, Inside, which had now become part of Outside. Zed stood, panting, watching the screen, ragged and broken at the bottom but still transmitting. It showed the camp that Isobel had said were Earthers trying to keep people away from aliens and Ruhan said were guards ensuring they could get in. Ruhan had been right; Isobel had pretended to be what she was not; none of that mattered now. In the camp, people stopped whatever they were doing to stare, cry out, rush forward. Some snatched up guns or even bigger weapons Zed could not identify.

Delia rushed into the room and gasped at the pieces of C7 scattered around. She screamed, "What have you done?"

"They will do it again," Zed said. "Isobel was right. It all will happen again. We build the world again the same terrible ways as we did before, and then they do it again." And then, "I far-saw."

"You're a monster!" Delia cried and launched herself at him.

Zed had expected to die—why wasn't he dead already?—but from aliens, not a human girl. Delia was strong and a fighter. She gouged his eyes, kicked his balls, scratched at his face. But he outweighed her by sixty pounds and had a man's muscles. He got her in a hold she could not break, not hurting her, and maintained it.

"Let me go!"

The screen changed to the inside of a ship, a sight so startling that Zed released Delia and they both stood, gaping. Zed knew it was the inside of the ship, although he didn't understand how he knew. A long narrow room with unknowable machinery, and beings standing or sitting. *Now* he would be vaporized.

He wasn't. One being moved closer and said simply, "Why?"

Delia cried. "He did it! Zed! Not us!"

"Why?" the woman repeated. Because it *was* a woman. Human, or so close as to make little difference: cousin to humans. She had gray eyes, larger than humans' eyes, and two flat nostrils instead of a nose. Her voice was C7's.

Zed said, "I far-saw."

C7 stared at him for a long time. There was no room around Zed, no Delia, no shattered robotic emissary. Only Zed and the woman, who finally said, "You are not ready. Your whole race is not ready."

"Go home," Zed said.

The screen blanked.

III. Inside/Outside

He doesn't know how long he stood there, staring at nothing, before he moved again. Two men from Outside, that was now Inside, rushed in. They were dressed like soldiers. They seized Zed, who didn't resist. "Come with us!"

He went. Soldiers were rounding up the 119 people in The Resort and bringing them to the gazebo. People rushed here and there, carrying weapons or Resort projects or links or babies. Somehow in the melee Isobel spotted Zed.

"Zed! Did you bring down the wall? A woman with a scar said it was you!"

"Yes." She was flushed and wide-eyed and beautiful. Zed felt nothing.

She cried, "All the creepy aliens vanished! These traitors had no idea that you—I had no idea! Why didn't you tell me you're an Earther? You got our revenge!"

"I'm not," Zed said, "and it wasn't revenge. Where is my mother?"

"She died, Zed. Last month."

He nodded. Somehow, he'd known that. Part of far-seeing? He wasn't sure, just as he wasn't sure, and never would be, if the aliens who had changed the world had or had not been human.

They had felt responsible for humanity's fate and the long-term consequences of its actions: "*So why is that your problem?*" "*I cannot tell you that yet.*"

They had come from very far away to stop what looked to them like self-destruction.

They knew so much about the human mind—and yet not enough to understand what they had turned Zed into. Nor to understand that they could not really change the course of human history. Only humans could do that.

"Isobel," he said urgently, "tell the soldiers not to destroy anything. There are projects here that can—tell them the aliens are gone but the people here know how to—Isobel—"

"What?"

He said slowly, "Tell them that what the people here know, the knowledge in their heads, can make you all *rich*. Very, very rich."

The soldiers slightly loosened their grip on Zed's arms. Isobel's eyes gleamed.

"I'll tell Gary, who will tell the Commander. You're a hero, Zed."

A hero. Already it was starting again: heroes, riches, rivalries. That was what Zed had to work with. Well, he would use whatever he had, to create change from the inside, not imposed from without. Although no one—certainly not Isobel—would understand that his act had not been revenge, no more than June 30th had been war.

Already the far-seeing pattern in his mind was shifting, growing blurry. Did that mean it could be changed? He didn't know, but he had to try.

For the common good. ○

Captain Prudence vs. Spiders from the Stars

Assuredly, "M.C. Planck" is the best name ever for a happening SF writer. It combines a rapper's hipness with scientific laboratory cred. I am going to assume that the possessor of that by-line came by it through an accident of birth and parental dispensation, and not by his own invention, and that, having been endowed with such a potent moniker, he was forced by sheer nominative determinism to enter our field.

But all kidding aside, M.C. Planck has the requisite chops his name implies. His debut novel, *The Kassa Gambit* (Tor, hardcover, \$24.99, 288 pages, ISBN 978-0-7653-3092-5) is the pure quill, a space adventure solidly planted in the middle of the genre's vast dominant lineage. Certainly not postmodern or "new space opera," it might have come from the pen of Poul Anderson or Gordon Dickson, Keith Laumer or James Schmitz, yet feels contemporary, dynamic, and authentic, not mere vintage pastiche. We might very well be witness here to the start of a career to match John Scalzi's.

Planck starts his novel rousing. Captain Prudence Falling, merchant trader of the starship *Ulysses*, is bringing a prosaic shipment of farm machinery to the planet Kassa, when she discovers the planet has been recently blasted to flinders. Narrowly avoiding destruction herself, she lands to offer aid to the survivors.

This chapter displays Planck's verve and dramatic abilities. He sketches Prudence and her motley crew with economy and vigor. Particularly affecting is the character of Jorgun, a simple-minded giant with certain idiot savant powers. At the same time, meaty background information on the reigning loosely

linked interstellar polity is deftly dropped into the action.

The second chapter introduces Lt. Kyle Daspar, ostensibly a simple cop, but now attached to the military. He arrives at Kassa shortly after Prudence. But Daspar is not what he seems. He's involved in big subterranean political conspiracies up to his neck, centering around a group called the League and their enemies. Kyle and Prudence are quickly thrown together on Kassa, and have some hair-raising experiences that link their fates even after they depart that world and return separately to the human *okimune*. In alternating chapters, the events on Kassa bloom into worlds-shattering consequences with life-or-death fallout for our heroes (including some unlikely, but believable romantic feelings between the mismatched pair).

Besides running his vibrant protagonists through breakneck action, Planck also takes time to offer some great speculations, such as why interstellar empires wouldn't necessarily happen.

"[C]ommunications [between star systems] had to be carried by hand. Radio didn't travel through [FTL] nodes. This had an unappreciated effect on social development. You could get anywhere on a planet in a few hours with a low-orbital flight. You could reach anywhere on a planet with vid comm instantly. People grew up that way, thinking of their whole world as one small place. That made the several-day trip through a node into a hurdle that most never bothered to leap. . . . Nothing had done more to still-birth stellar empires than this reflexive laziness." It's a kind of galactic version of Simak's famous "Huddling Place" thesis that I don't think I've seen before.

Additionally, Planck's future—set several centuries from now—has the same

kind of charming misapprehended sense of history found in Laumer & Brown's *Earthblood*: "Not that anybody even knew what a Tibetan monk was. Half the sources said they were religious zealots, and the other half said they were super-soldiers with magic powers." This kind of thing makes for a light and lively and quirky setting. Finally, the enigma surrounding the politician Ver-am Dejae brings to my mind one of Jack Vance's great signature motifs, the quest for the queer and deadly secrets of a criminal or parvenu.

Working a central stratum of the genre that others might have marked as played-out, M.C. Planck discovers there are still plenty of riches in them thar stars.

The Cross-Dimensional Runaway Bride

Emma Newman's first novel for adults, *Between Two Thorns* (Angry Robot, trade paper, \$14.99, 380 pages, ISBN 978-0-85766-321-4) is a lively, engaging, inventive and robust . . . portal fantasy. Given that the entire internet has within recent memory concluded that portal fantasies are an extinct and disliked form of imaginative literature, Newman's triumph is all the more noteworthy.

The category of portal fantasy generally involves two worlds: our consensual, normative one, and some adjacent, more magical dimension to which not everyone has easy access. Think of Narnia as the uber-example. The rap against such structural conceits is that all too often the connections between the baseline world and the stranger world are minimal and inconsequential, rendering the subcreation dominant—and so why not just have an untethered fantasy milieu standing self-sufficient by itself? Obviously, there have been plenty of exceptions to this defect. One might cite even good science fictional versions, such as Charles Stross's *Merchant Princes* series.

Newman's book, volume 1 in the Split Worlds saga, does not neglect to yoke her two worlds tightly together, with plenty of cause and effect and consequence. Cit-

izens from each influence their other-worldly counterparts in spades.

First comes our plane, Mundanus, familiar enough. But Mundanus interpenetrates with the Nether, a realm full of Fairy Lords and Fae, with its own elaborate social structures and rituals. The action inhabits mainly the city of Bath and its "reflection" in Nether, Aquae Sulis, with some doings in mundane Manchester and London.

Primary to our tale is the character of Catherine Rhoeas-Papaver. Cathy comes from a prestigious Nether family, but has rebelled. She went missing over a year before our tale begins, and has been living, magically cloaked from apprehension, in Mundanus, enjoying her freedom. But she is tracked down and brought back to Aquae Sulis, for an arranged dynastic marriage with William Reticulata-Iris, a self-confident and somewhat preening lad her age.

Meanwhile, Max, an Arbiter or law-enforcement agent from Nether, has stumbled on a power-grab among the competitive ruling families that threatens not only his life but also the very basis of Nether society. Of course, he's got to pursue his investigations while his soul is encased in a stone gargoyle brought to life. And did I mention that the scary Fairy Lord named Poppy, patron of the Rhoeas-Papaver clan, has maliciously granted Cathy three dangerous wishes? Or that Sam, a mundane fellow, has witnessed some crucial shenanigans of the Nether crowd, and been magicked out of his wits?

Newman keeps all her balls aloft with grace and precision. She shows flair for droll dialogue, in almost the manner-punk fashion, and all her characters jump off the page. Will, for one, emerges as not the total jerk he at first appeared. Moreover, Newman takes various potent tropes from fairy tales and tinkers with them to make them fresh. For instance, here's the curse on Cathy that protects her virginity. "If I tried to take my clothes off near a man, with the intention of . . . being close to him [ellipsis sic], they would put themselves back on

again. I couldn't even unbutton my shirt or take off my shoe if that was what I was planning to do."

Both on its own merits, and as a comic counterweight to Marie Brennan's darker Onyx Court series, this kickoff to the Split Worlds cosmos is well worth being ensorcelled by.

Three Capacious Compendia, Subterranean Style

At Subterranean Press, publisher and editor Bill Schafer continues to act as a brilliant curator of massive short-story collections, at a time when most other publishers regard such offerings as box-office poison. Subterranean's devotion to this essential category of genre book stands as a bulwark against neglect of the short fiction format.

Here's a look at three of the newest.

Fittingly enough, a scathing, searing, self-aware and yet somehow at-peace confessional essay opens up Lucius Shepard's *Five Autobiographies and a Fiction* (hardcover, \$45.00, 368 pages, ISBN 978-1-59606-555-0). From this hypnotically honest introduction, we learn how the bulk of these tales intersect with Shepard's actual history, in ways burnished and warped by his craft and aesthetics. All the stories here—novellas, mostly—have seen print previously, but in such a variegated array of magazines and anthologies that it is unlikely any one reader, even big Shepard fans, will have encountered all of them before.

"Ditch Witch" follows the entanglement of two drifters, down-and-out types named Michael and Carole. He's fleeing a bad gigolo lifestyle, and she's a young aimless hitchhiker—or so it seems at first. But one night spent at a weird motel, and their lives will never be the same, as they enter uncanny territory. Shepard's unsparing Ellisonian gutter-crawling among the damaged and damned has never been sharper.

"The Flock" anatomizes small-town high school existence with dread and precision, while threading fresh-feeling supernaturalism amidst the mundane.

This kind of intricate balancing act—between closely observed and sharply rendered quotidian life and surreal horrors—is the essence of the Shepard brand of storytelling. This time around, two pals, Andy and Doyle, exist in a kind of aimless foundering while playing desultory football. But the doings of some very strange birds will justify Andy's observation that "weirdness is a vein that cuts all through the world."

Cliff Coria is a washed-up B-movie actor reduced to selling used cars for a living in Daytona Beach. His fascination with a weird motel (a motif of Shepard's for sure) turns into a deadly dance with the occult. Paralleling one of his old movies, Cliff's one-way descent into madness is marked by Shepard's typical milestones of humiliation, confusion, and vain attempts at remorse and reform.

In "Dog-eared Paperback of My Life," enigmatic signs of his own doppelganger propel a fantasy writer into a nebulous quest in Southeast Asia that culminates in a kind of fatalistic Tiptree transcendence. The opener and premise of this one somehow made me realize just what an affinity Shepard—generally dubbed an SF or fantasy writer—has with Lovecraft and other more sophisticated horror writers such as Robert Aickman and Thomas Ligotti.

Shepard comes the closest he ever will to the whimsicality of Lafferty or Blaylock, and the New Weird of Miéville in "Halloween Town," where the strange, chasm-ensconced burg is as big a character as the oddbals that inhabit it. And finally, "Rose Street Attractors" is a pitch-perfect steampunk tale about mechanically mediated ghosts.

This new collection finds Shepard still at the apex of his powers, and bodes well for more work down whatever of his parallel lifelines he pursues.

John Varley's latest novel, *Slow Apocalypse*, a harrowing odyssey across our collapsing civilization, shows this writer at the top of his game as he approaches his fortieth anniversary ("Picnic on

Nearside,” 1974, marked his debut). And to accompany that volume we get *Good-bye, Robinson Crusoe and Other Stories* (hardcover, \$45.00, 344 pages, ISBN 978-1-59606-528-4), a reminder of the short-form medium in which this writer first dazzled the field with his inventive, Heinlein-rich milieus; his captivating characters; and his easy-going vernacular prose. The book features eleven stories not otherwise available under Varley covers, from the years 1975 through 1986, and they are arranged in a kind of Grand Tour of the Solar System. Entertaining prefaces also entice.

Our Grand Tour starts logically around the Sun, with “The Funhouse Effect.” A Carrollian cruise to the Sun’s corona proves to be both more and less than it confusingly appears. Mercury is our next stop, with “Retrograde Summer,” a tale about sibling misunderstandings where we begin to see some of Varley’s patented innovations in gender-swapping, social mores, and bioengineering. To my ear, echoes of Sturgeon fill “In the Bowl.” Maybe it’s just the nature of the precocious Venusian girl named Ember and her relationship with an amateur prospector named Kiku that summon up such resonance. In the matter of “Blue Champagne,” I find Varley quivering to the strains of prime Zelazny, with his focus on a glamorous yet crippled media vampire of sorts, the Golden Gypsy, and her relationship with a beachbum-type fellow named Q.M. Of course, these comparisons do nothing to obscure Varley’s unmistakable voice and tone in all instances.

“Bagatelle” concerns lunar cop Anna-Louise Bach and her spontaneous and possibly fatal assignment to defuse a talking nuclear bomb, with the help of a quirky visiting expert in such matters. Varley does not receive enough credit, I believe, for pioneering the posthumanist mode of SF. But a reading of “Equinoctial,” whose vastly modified protagonist dwells in the rings of Saturn, sustained by a symbiotic spacesuit, will certainly conjure up comparisons to Sterling’s *Schismatrix*.

The title story, set in “an environment bubble below the surface of Pluto,” finds Piri, a “boy” in his second childhood, modified for an amphibious lifestyle, being forcibly recalled to a past existence. Varley’s depiction of this “steel beach” habitat is magnificent and awe-inspiring. “Lollipop and the Tar Baby” concerns a sentient black hole and the woman named Xanthia who wants to capture it. “The Black Hole Passes” focuses on two folks pulling data from the fabled Ophiuchi Hotline. And a pair of minor but enjoyable non-Grand Tour tales—“The Unprocessed Word” and “The Manhattan Phone Book (Abridged)” —round out what will surely become an essential addition to any bookshelf.

Editors Terry Dowling and Jonathan Strahan have again provided a feast with *Magic Highways: The Early Jack Vance, Volume Three* (hardcover, \$45.00, 336 pages, ISBN 978-1-59606-560-4). This time around, there are sixteen stories—including Vance’s second, often overlooked sale—bridging the years 1946 through 1956, and each one bears that special Vance stamp of joyous and exotic adventures told in sparkling prose.

Some highlights:

The very first story, “Phalid’s Fate,” is admirably selected to convey immediately the pleasures of Vance’s writing. Waging war with mysterious aliens, humans have transplanted the brain of a volunteer into the body of a Phalid prisoner, and sent the agent undercover to the Phalid home planet. Vance builds up the agent’s poignant dilemma with swift strokes; creates a weird alien culture and biology; and factors in an improbable but touching love story as well. All within the space of just under thirty pages.

“Dead Ahead” goes the full-bore Poul Anderson route with an attempted circumnavigation of the entire universe. In “The Ten Books,” a husband-and-wife interstellar prospecting team stumbles on a lost utopia that offers immense ethical challenges to the whole species, and to

the discoverers individually. For a long time the "Jack Vance" byline was mistakenly believed to be a penname for Henry Kuttner, and so it's ironic that "The Uninhibited Robot" reads a bit like one of Kuttner's Gallagher tales, concerning a network of matter transmitters stymied by an off-kilter computer brain.

Vance's ability to conjure up villains nearly as colorful as his heroes is in evidence with "Sabotage on Sulfur Planet." The freebooter Captain Plum, a regular Bluto of a starship captain, has discovered the first planet with sentient aliens on it, but kept the coordinates secret to ensure easy plunder. It's up to rookie agent Robert Smith of Star Control—after an unfortunate start to his career—to infiltrate Plum's crew, endure some major mistreatment, and stop the exploitation. Much like Heinlein's "Goldfish Bowl," "The House Lords" is a chilling speculation about mankind as property.

Vance, of course, had a second, smaller, but not inconsequential career as a

writer of mystery novels, and so it's no surprise that much of his SF also centered around crimes and criminals. One of his best early investigators was the dapper, unflappable, and elderly fellow called Magnus Ridolph. Vance's ability to make a white-haired old man into a believable crimestopper (who mostly uses wits, but also not a little physical activity) is testament to the writer's determination to revel in the outré. A suite of seven Ridolph stories (not the entirety of his saga, since some have appeared in earlier volumes in this series) adds zest to the latter half of *Magic Highways*. Perhaps the best is "The King of Thieves," in which Ridolph emerges as top dog on a planet of kleptomaniacs, and gets some personal revenge as well.

All writers are unique, insofar as all human beings are quintessentially themselves. But there are some writers who are more unique than others, if you will allow the solecism, and Jack Vance is SF's prime example of such a talent. ○

At Lake Champlain

I woke late that morning;
the canoe was gone, her leather shoes left
on the dock. In the fog I felt a whisper pass
through me. Not a scream, not a wave.

She believed
in lake monsters, kept strange books
hidden in drawers where she thought
I'd never find them.

Later, a necklace would turn up.
Followed by few bones, unidentifiable.

But I'd been cold so long,
starting on the dock at Lake Champlain,
sunrise chill resting on my shoulders,
knowing it had taken her away.

—E. Kristin Anderson

NEXT ISSUE

FEBRUARY ISSUE

February 2014 leads off with “Schools of Clay,” an exciting new hard science fiction novelette by **Derek Künsken**. The action never lets up in this fast-paced tale about aliens whose life cycle incorporates time travel and black holes. First-time *Asimov's* author, **Maurice Broaddus**, wraps up the issue with a thrilling steampunk novelette set in an alternate Jamaica. History is wonderfully re-imagined and explored in the life-and-death struggle for “Steppin’ Razor”!

ALSO IN FEBRUARY

Sarah Pinsker travels through space to make her *Asimov's* debut with a poignant look at a recently widowed photographer offered the chance to document “The Transdimensional Horse-master Rabbis of Mpumalanga Province”; **Jason K. Chapman** investigates life after “The Long Happy Death of Oxford Brown”; long-published, but new to *Asimov's*, author **Marissa Lingen** lightens our mood with the insightful “Ask Citizen Etiquette”; **M. Bennardo** treats us to a wistful “Last Day at the Ice Man Café”; and “Ball and Chain,” **Maggie Shen King's** first story for *Asimov's*, reveals the future of marriage in a gender imbalanced China.

OUR EXCITING FEATURES

Robert Silverberg's Reflections presents us with the startling joy of “Rereading Philip José Farmer”; **Peter Heck's** On Books muses on the works of Connie Willis, Catherynne M. Valente, Chris Moriarty, and others; plus we'll have an array of poetry that you're sure to enjoy! Look for our February issue on sale at newsstands on December 17, 2013. Or subscribe to *Asimov's* (in paper format or in downloadable varieties) by visiting us online at www.asimovs.com. We're also available individually or by subscription on *Amazon.com's* Kindle and Kindle Fire, *BarnesandNoble.com's* Nook, *ebookstore.sony.com's* eReader, *Zinio.com*, and from magzter.com/magazines/!

COMING SOON

new stories by **Nancy Kress**, **Robert Reed**, **Cat Rambo**, **Lavie Tidhar**, **Michael Swanwick**, **Matthew Johnson**, **Fran Wilde**, **Mike Resnick & Ken Liu**, **Sandra McDonald**, **Ian Creasey**, **Jay O'Connell**, **J.M. McDermott**, **Sylvain Jouty**, **Karl Bunker**, **James Patrick Kelly**, **Jeremiah Tolbert**, **Peter Wood**, **James Van Pelt**, **Genevieve Williams**, **Dominica Phetteplace**, **Sean Monaghan**, **K.J. Zimring**, **Will McIntosh**, and many others!

TWENTY-EIGHTH ANNUAL READERS' AWARD

It hardly seems possible that we could be up to the January issue already, but that's what the calendar says—and that means that once again it's time for our Readers' Award poll, which is now in its twenty-eighth year.

Please vote. Most of you know the drill by now. For those of you who are new to this, we should explain a few things.

We consider this to be our yearly chance to hear from you, the readers of the magazine. That's the whole point behind this particular award. What were your favorite stories from *Asimov's Science Fiction* last year? This is your chance to let us know what novella, novelette, short story, poem, and cover, you liked best in the year 2013. Just take a moment to look over the Index of the stories published in last year's issues of *Asimov's* (pp.109-111) to refresh your memory, and then list below, in the order of your preference, your three favorites in each category. By the way, we love to get comments about the stories and the magazine, so please free to include them with your ballot. **Please note: unless you request otherwise, comments will be considered for publication with attribution in the editorial that accompanies the announcement of the Readers' Award Results.**

Some cautions: Only material from 2013-dated issues of *Asimov's* is eligible (no other years, no other magazines, even our sister magazine *Analog*). **Each reader gets one vote, and only one vote.** If you use a photocopy of the ballot, please be sure to include your name and address; your ballot won't be counted otherwise.

Works must also be categorized on the ballot as they appear in the **Index**. No matter what category you think a particular story ought to appear in, we consider the Index to be the ultimate authority in this regard, so be sure to check your ballots against the Index if there is any question about which category is the appropriate one for any particular story. In the past, voters have been careless about this, and have listed stories under the wrong categories, and, as a result, ended up wasting their votes. All ballots must be postmarked no later than **February 1, 2014**, and should be addressed to: **Readers' Award, Asimov's Science Fiction, Dell Magazines, 267 Broadway, 4th Flr., New York, NY. 10007.** You can also vote online at asimovssf@dellmagazines.com, but you must give us your physical mailing address as well. We will also post online ballots at our website, so please check us out at www.asimovs.com.

Remember, you—the readers—will be the only judges for this award. No juries, no panels of experts. In the past, some categories have been hotly contended, with victory or defeat riding on only one or two votes, so every vote counts. Don't let it be your vote for your favorite stories that goes uncounted! So don't put it off—vote today!

BEST NOVELLA:

1. _____
2. _____
3. _____

BEST NOVELETTE:

1. _____
2. _____
3. _____

BEST SHORT STORY:

1. _____
2. _____
3. _____

BEST POEM:

1. _____
2. _____
3. _____

BEST COVER:

1. _____
2. _____
3. _____

NAME: _____

ADDRESS: _____

SIGNATURE: _____

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—: "... Not Even Wrong" (ed) June	6	The Ex-Corporal (ss) Aug	48
—: John Frum, He Come (ed) July	6	Tidhar, Lavie—	
—: Rereading Simak (ed) . . . Aug	5	Needlework (ss) March	48
—: Translations (ed) Sept	6	Vaughn, Carrie—	
—: Translations Part II (ed) . . Oct/Nov	8	The Art of Homecoming (nt) . . July	22
—: The Plurality of Worlds (ed) Dec	6	Wall, Alan—	
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— March	112	Editorial: Poet of Mars (ed) . . . Jan	4
— April/May	192	—: Perils of Time Travel (ed) . Feb	4
— June	112	—: The Distaff Stuff (ed) . . . March	4
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— Aug	112	—: Luna's First Heroes (ed) . . July	3
— Sept	112	—: The 2013 Dell Magazines	
— Oct/Nov	192	Award (ed) Aug	3
— Dec	112	—: On Not Dying of the	
Tem, Steve Rasnic—		Light (ed) Sept	4
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Teper, Igor—		Readers' Award Results (ed) . Oct/Nov	4
Shadow (p) April/May	143	—: Living in a Science	
Quantum Orpheus, at the		Fictional Universe (ed) . . . Dec	4
Light Cone's Apex (nt) Oct/Nov	96	Yolen, Jane—	
Thomas, Leah—		Telling the True (p) Aug	55

SF CONVENTIONAL CALENDAR

Another jam-packed month. For Asimovians, I recommend any of the first four cons (I'll be at PhilCon), as well as TusCon, ICon, LosCon and SFConTario. I'll be at DarkoverCon, to hang with some musical friends. Plan now for social weekends with your favorite SF authors, editors, artists, and fellow fans. For an explanation of our con(vention)s, a sample of SF folksongs, and info on fanzines and clubs, send me an SASE (self-addressed, stamped #10 [business] envelope) at 10 Hill #22-L, Newark NJ 07102. The hot line is (973) 242-5999. If a machine answers (with a list of the week's cons), leave a message and I'll call back on my nickel. When writing cons, send an SASE. For free listings, tell me of your con five months out. Look for me at cons behind the Filthy Pierre badge, playing a musical keyboard. —Erwin S. Strauss

NOVEMBER 2013

- 8-10—**PhilCon**. For info, write: **Box 8303, Philadelphia PA 19101**. Or phone: **(877) 656-3914** (10 am to 10 pm, not collect). **(Web)** philcon.org. **(E-mail)** info@philcon.org. Con will be held in: Cherry Hill NJ (if city omitted, same as in address) at the Crowne Plaza. Guests will include: author Allen Steele, artist Charles Vess, fan Robert Madle (attended 1st PhilCon, in 1936!), musician S. J. Tucker.
- 8-10—**WindyCon**. windycon.org. Westin, Lombard (Chicago) IL. Author Jim C. Hines, artist Pete Abrams, musician Michael Longcor.
- 8-10—**OryCon**. orycon.org. Doubletree, Portland OR. Author Anne Bishop, artist Larry Elmore, Jay Lake, editor Liz Gorinsky.
- 8-10—**TusCon**. tusconscificon.com. Hotel Tucson City Center. Juliet Blackwell, Jessica Feinberg, toastmaster Ed Bryant.
- 8-10—**Anthology**. anthocon.com. Holiday Inn, Portsmouth NH. Workshops, panels, readings, signings, art. Free dealer-room access.
- 8-10—**AtomaCon**. atomacon.org. Sheraton Airport, North Charleston SC. Jack McDevitt. "Where History Meets the Future."
- 8-10—**FaerieCon East**. faeriecon.com. Westin, Hunt Valley (Baltimore) MD. C. de Lint, C. Vess, Jim Butcher. "Good/Bad Faeries."
- 8-10—**OmegaCon**. omegacon.org. Siren WI. Low-key SF and fantasy relax-a-con at a summer resort.
- 8-10—**NovaCon**. novacon.org.uk. Park Inn, Nottingham UK. Jo Walton. One of two long-running UK cons this weekend.
- 8-10—**ArmadaCon**. armadacon.org. Future Inn, Plymouth UK. The other long-running UK con this weekend.
- 8-10—**Crime Bake**. crimebake.org. Hilton, Dedham MA. Meg Gardenier. For fans of mystery fiction.
- 8-10—**Darkside of Daedalus**. darkside-events.de. Fritz Husemann Haus, Recklingshausen, Germany.
- 8-10—**AniMaine**. animaine.com. Best Western Merry Manor Inn, South Portland ME. Anime.
- 15-17—**AstronomiCon**. (585) 342-4697. astronomicon.info. Radisson Riverside, Rochester NY. Authors David Gerrold, Peter David.
- 15-17—**ICOn**. iowa-icon.com. Cedar Rapids IA. Nancy Kress, Ellen Datlow, Jack Skillingstead, Joe Haldeman, G. Frost, Jim C. Hines.
- 15-17—**KollisionCon**. kollisioncon.com. Crowne Plaza, Rosemont (Chicago) IL. Christopher Smith. Japanese popular culture.
- 16-17—**Pure ?peculation**. purespec.org. Ramada, Edmonton AB. Authors Arthur Slade and Gail Carriger. Speculative fiction.
- 22-24—**WhoFest**. whofestdfw.org. Crowne Plaza, Addison (Dallas) TX. "50th Anniversary Celebration of Dr. Who."
- 22-24—**Midwest FurFest**. furfest.org. Hyatt, Rosemont (Chicago) IL. Jamie (Chibi) Marrow, Lindsey (Silver Huskywolf).
- 29-Dec. 2—**LosCon**, 6012 Tyrone Ave., Van Nuys CA 91401. loscon.org. Los Angeles CA. Long-running SF and fantasy con.
- 29-Dec. 1—**SFContario**, 151 Gamma, Toronto ON M8W 4G3. sfcontario.ca. Ramada Plaza, Toronto ON. Seanan McGuire, Dave Kyle.
- 29-Dec. 1—**ChamBanaCon**. chambanacon.org. Holiday Inn, Urbana IL. Alex Bledsoe, Gene Wolfe. Low-key SF/fantasy relax-a-con.
- 29-Dec. 1—**DarkoverCon**, Box 7203, Silver Spring MD 20907. darkovercon.org. Timonium MD. Music, alternative spirituality.
- 29-Dec. 1—**StarBase Indy**. starbaseindy.com. Marriott East, Indianapolis IN. Rene Auberjonois. DS9, SG-1 and Babylon 5.
- 29-Dec. 1—**Tardis**, Box 2660, Glen Ellyn IL 60138. chicagotardis.com. Westin, Lombard (Chicago) IL. Past doctors. Dr. Who.

DECEMBER 2013

- 2-6—**Sail to Success**. sailsuccess.com. Norwegian Sky, sailing from Miami FL. Resnick, Flint, Kress, others. Writers' workshop at sea.
- 6-8—**SMOFCon**. smofcon30.org. Toronto ON. Con organizers meet to talk shop. "Learning from the Past, Looking to the Future."
- 27-29—**IkkiCon**. ikkicon.com. Hilton, Austin TX. Anime.

JANUARY 2014

- 9-12—**DarkCon**, 8726 N. 48th Ave., Glendale AZ 85302. darkcon.org. Airport Marriott, Phoenix AZ.
- 10-12—**IllogiCon**. illogicon.com. Embassy Suites RTP, Raleigh/Durham NC. Mary Robinette Kowal, Lawrence M. Schoen.

AUGUST 2014

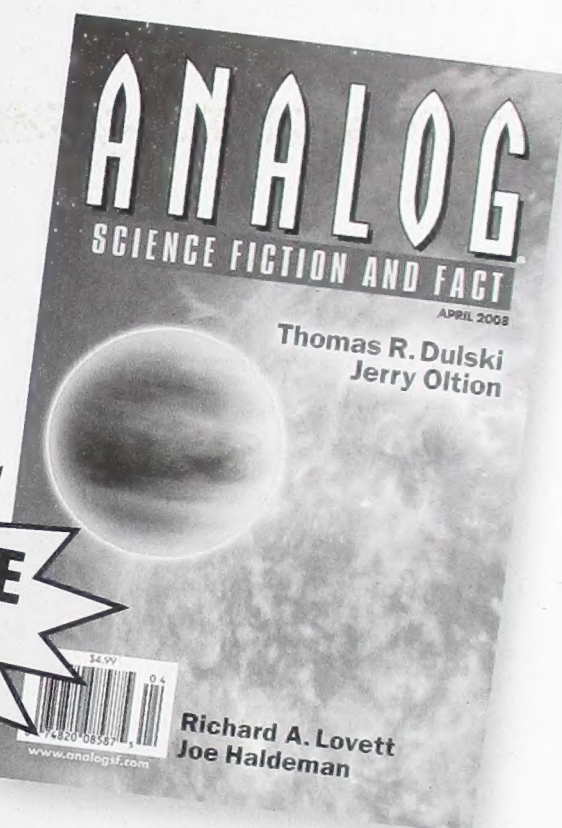
- 14-18—**LonCon 3**, 379 Myrtle Rd., Sheffield S2 3HQ, UK. loncon3.org. Docklands, London UK. The WorldCon. £105/A,C,US\$170.

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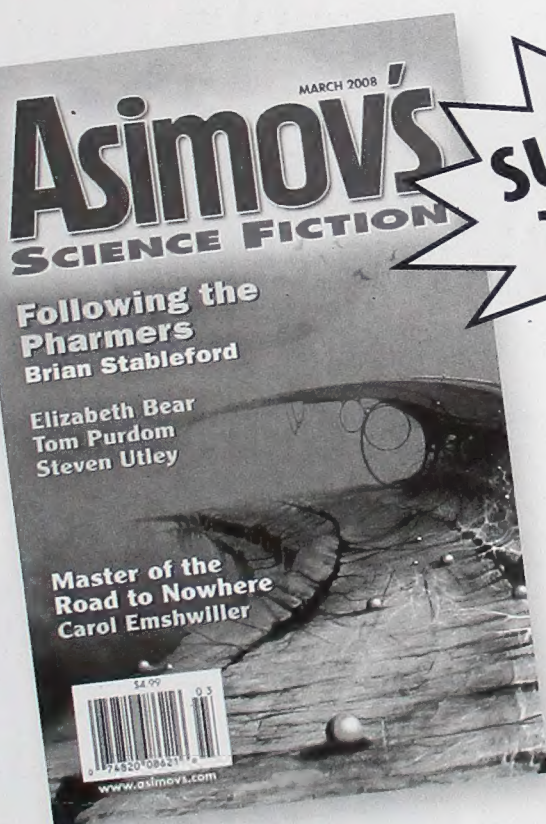
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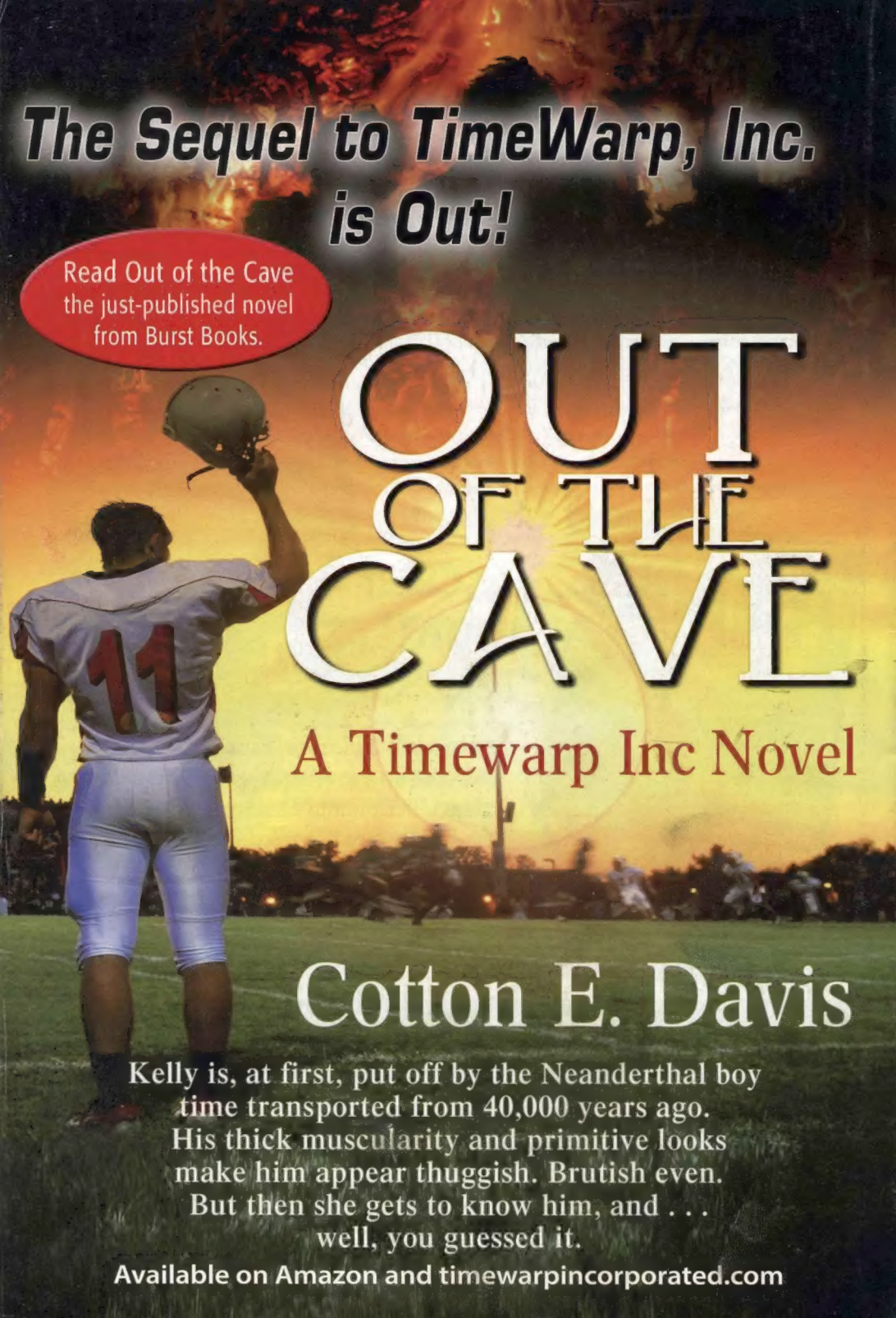
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